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*An inquiry into the difference of
style observable in ancient ...*

Charles Winston

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AN INQUIRY
INTO
THE DIFFERENCE OF STYLE
OBSERVABLE IN
Ancient Glass Paintings.
ESPECIALLY IN ENGLAND:

WITH
HINTS ON GLASS PAINTING,
BY AN AMATEUR.

"PROBA EST MATERIA, SI PROBUM ADHIBEAS ARTIFICEM."

ERASMI ADAGIA.

PART I.—TEXT.

OXFORD:
JOHN HENRY PARKER.

MDCCCXLVII.

"QUARE QUIS TANDEM ME REPREHENDAT, AUT QUIS MIHI JURE SUCCENSEAT, IS, QUANTUM CETERIS AD SUAS RES OBEUNDAS, QUANTUM AD FESTOS DIES LUDORUM CELEBRANDOS, QUANTUM AD ALIAS VOLUPTATES, ET AD IPSAM REQUIEM ANIMI, ET CORPORIS CONCEDITUR TEMPORUM; QUANTUM ALII TRIBUUNT TEMPESTIVIS CONVIVIIS; QUANTUM DENIQUE ALEÆ, QUANTUM PILÆ; TANTUM MIHI EGOMET AD HÆC STUDIA RECOLENDASUMSERO?"—CIC. PRO ARCH.

P R E F A C E.

THE following work is the result of the study and attention which, at intervals of leisure during the last fifteen or sixteen years, have been given to a favourite pursuit. At a very early period it occurred to me that the varieties of ancient glass painting were capable of a classification similar to that established by the late Mr. Rickman^a with regard to Gothic Architecture; and in the year 1838 I accordingly sketched out a little work, which, though not intended for publication, was shewn in MS. to several of my friends and others interested in the subject. This work has formed the nucleus of the present. My materials were continually increasing on my hand, but I had no idea whatever of giving them to the press, until in a conversation with Mr. Parker he suggested that the publication of my observations might prove useful in directing attention to the study of painted glass, and in facilitating the investigations of others.

^a I have adhered as nearly as I could to Rickman's nomenclature from a sense of the inconvenience which results from any unnecessary departure from esta-

lished terms. See some sensible remarks on this subject, *Archæological Journal*, vol. iii. p. 372 et seq.

The execution of it has been attended with considerable labour, from the difficulty of arranging the mass of materials I had collected, and from the necessity of entering very carefully into a great deal of minute detail. Unfortunately I have seldom been able to give an undivided attention to the work for any considerable length of time. Interruptions occasioned by professional duties, and by preparing drawings for the plates, have prevented my doing so; and I must plead this circumstance as an excuse for occasional defects of arrangement and style. I can however safely affirm that no pains have been spared to render the work substantially as accurate as possible, in reference to those matters which constitute the peculiar subject of it.

In forming such of my opinions as relate more exclusively to glass painting, I have, in addition to a practical knowledge of the art,—for which I am indebted to the instruction of the late Mr. Miller, the distinguished glass painter of his day,—derived much benefit from an acquaintance with a few other leading glass painters, and from the opportunities which I have had of watching the progress of several applications of this art, conducted on principles very opposite to each other; while in those conclusions which rest on more extensive views of Art in general, I have received the most valuable assistance from my friend the Rev. George Hamilton.

The present work is divided into two parts. In the first I have attempted to lay down rules which may serve to point out the leading distinctions of styles: the second contains observations on the present state of the art, and suggestions for its application to particular purposes, and as to the best means for its advancement. In some of my views I may seem too much inclined to innovation, but I assure the reader that none of them have been hastily adopted. It is an error to suppose that glass painting cannot be properly exercised now, without a strict recurrence, in all respects, to the practice of the middle ages. It is a distinct and complete branch of Art, which, like many other medieval inventions, is of universal applicability, and susceptible of great improvement. Therefore it seems improper to confine it to a mere system of servile and spiritless imitation. In expressing my opinions on this part of the subject, I have not ventured to do more than throw out a few hints for the consideration of artists: to give any precise directions on such a matter would be to travel out of the province of an amateur, who, though at liberty to criticise a work of art, has no right to assume the authority of a teacher.

For this reason I have carefully abstained from laying down any rules as to the composition and colouring of glass paintings, the omission of which may perhaps by some be considered to lessen the value of the work. With

regard to colour, however, I may be permitted to remark, that the same general principles apply to a glass painting as to any other: and to express my conviction that there is no foundation for the belief that anciently a symbolical disposition of colours was observed in a scriptural glass painting. The conclusion I have arrived at on this latter point is confirmed by the opinion of M. Lasteyrie^b.

It is proper that I should make some observations on the plates which accompany this work. I had originally intended, in addition to the other illustrations, to give a general view of a window belonging to each style, and had prepared drawings for that purpose: but I was induced to abandon the project, from a conviction that the usefulness of these plates would not be commensurate with the increased cost of the work. The difficulty of producing in a plate the *effect* of painted glass, has never yet been overcome, even in engravings of large size, and as it is enhanced by every reduction in the scale of the plate, it became evident to me that my sole object in introducing these general views would be frustrated. I have therefore endeavoured to supply the deficiency, as well as I could, by references to plates of entire windows in other works. With the exception therefore of one general view of a window, copied from a French work, and which being represented in outline only, presented no difficulty of exe-

^b Lasteyrie, "Histoire de la Peinture sur Verre," p. 70, note.

cution, all the plates have been taken from detached portions of glass paintings. They are all copied from genuine examples, and are arranged in two classes ; the first consists of designs on a reduced scale, some coloured, some executed merely in outline ; which form of themselves a tolerably connected series of glass paintings from the thirteenth to the seventeenth century. The second class is composed of engravings of the full size of the original examples : these range over as wide a period as the subjects of the first class, and, like them, are executed some in colours, some in outline only. By this means I hope to familiarize the reader's eye with the *handling*, as well as the general effect of ancient glass paintings. How far I may have succeeded in this remains to be seen. I have, however, taken care in every plate to notice those minute features which are peculiar to glass paintings, as the leads by which the work is held together, &c. ; so that I trust the plates, if considered merely as *diagrams*, may serve in some measure to explain the letter-press.

In conclusion, I must express my grateful thanks for the assistance I have derived, in the progress of this work, from the advice and suggestions of many of my friends. My best acknowledgments are due to Richard Charles Hussey, Esq., of Birmingham, for his liberal offer, made through my friend W. Twopeny, Esq., of placing some valuable drawings of painted glass at my disposal, of which,

owing to the progress that had been made in the work, I was not able to avail myself. Mr. Ward, the eminent glass painter, must allow me to thank him sincerely for the many valuable practical hints he has at various times communicated to me. I am forbidden to mention the name of an intimate friend, to whom I feel under the deepest obligations, for his kind aid not only in verifying dates and correcting references, but in superintending the whole construction of this work.

C. W.

October 8, 1846.

NOTE.

THE terms "Painted glass," and "Stained glass," are commonly used as if they were synonymous. I have however adopted the former, from a belief that although not strictly correct, it is on the whole a more correct expression than the latter. For a glass painting may be entirely formed of painted glass,—i. e., glass painted with an enamel colour,—but it would be impossible to execute a glass painting merely by staining the glass. Most glass paintings are formed by combining the two processes of enamelling and staining.

I should perhaps state that this work treats only of that process of glass painting which is perfected by the aid of fire. There is a mode of ornamenting glass with colours mixed with copal, or other varnish. But this is not glass painting in its true sense. A painting thus executed will perish as soon as the varnish with which the colour is mixed loses its tenacity, which is usually in the course of a few years. A real glass painting, however, if properly executed, will endure as long as the glass itself.

As some of my readers may not be aware of the sense in which the term "white glass" is used in this work, I will add, that amongst glass painters it technically signifies *uncoloured* glass, or glass to which no colour has been intentionally applied in the manufacture of it.

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INTRODUCTION.

THE principal object of this work is to investigate the varieties of ancient glass painting, and to reduce them to a few classes or styles, in the same manner as has been successfully attempted with regard to Gothic architecture.

But, for the study of this subject, and indeed for the proper understanding of the following essay, it is necessary to have some acquaintance with the principles and practical details of glass painting; and with the species of evidence by which alone the date of a glass painting can be ascertained, and a place assigned to it in any particular style. I think it desirable therefore, to lay before the reader, who may not be already familiar with these subjects, some information and remarks, which may serve as an introduction both to the practical and antiquarian knowledge of the art.

It is unnecessary to enter into any lengthened disquisition concerning the antiquity of the manufacture of glass, or of its employment, whether plain, coloured, or painted, in windows. It is well ascertained that glass, both white and coloured, opaque and transparent, was made by the Egyptians upwards of three thousand years ago^a: but until the commencement of the Christian era, the material does not appear to have been applied to any other purpose than

^a Sir Gardiner Wilkinson describes the proficiency of the ancient Egyptians in the art of making white and coloured glass, at the period of the eighteenth dynasty. "Manners and Customs of the ancient Egyptians." Lond., vol. iii. p. 99. The space of time he allots to this

dynasty, is from 1575 to 1269 B. C. *Ib.*, vol. i. p. 47. The Egyptians were acquainted with the art of *glass blowing* upwards of 3500 years ago. *Ib.*, vol. iii. p. 88, where a representation of workmen engaged in the process is given from one of the tombs.

the formation of various utensils and ornaments,—of mosaic works, and the counterfeiting of precious stones. A passage in Lactantius is commonly referred to as the first undoubted mention of the use of glass in windows^b. Leo the Third is said to have adorned the windows of the Lateran with coloured glass,—the earliest instance of the kind that can be cited with confidence^c; and it may be inferred that the art of *glass painting* was known at least as early as the tenth century, since the process is minutely described in the second book of the “*Diversarum Artium Schemata*” of Theophilus; a work supposed to have been written in that or the following century. A translation of this part of the treatise is given in the Appendix^d to the present work. The information which it contains is most interesting, and throws light on the execution of glass paintings, not only during that particular age, but throughout many subsequent centuries. In consequence, however, of the changes which have since been introduced into the practice of the art, it becomes necessary to describe it as it exists at present.

The glass used in glass paintings is, in its original manufactured state, either *white*, or *coloured*. The ingredients of White glass^e, of which silex and alkali are the most important, are incorporated by fusion in the melting-pot of the glass-house, having been in general previously *fritted*; i. e. roasted with a strong fire, in order to facilitate their union. When the vitrification in the melting-pot is complete, the glass is formed into sheets^f. These are afterwards *annealed*, i. e. suffered to cool very gradually, a pro-

^b “*Verius et manifestius est, mentem esse, quæ per oculos ea, quæ sunt opposita, transpiciat, quasi per fenestram lucens vitro aut speculari lapide obductam.*” De opif. Dei, c. 8. This work is supposed to have been written at the close of the third century, or the beginning of the fourth.

^c “*Fenestras de apside ex vitro diversis coloribus conclusit.*” Fleury, Hist. Eccl., 12mo. vol. x. p. 158.

^d See post, Appendix A.

^e See note *a* at the end of this Introduction.

^f See note *b* at the end of this Introduction.

cess which renders them less brittle; and they are then ready for use.

Coloured glass is of two kinds :—

One kind is coloured throughout its entire substance^a, and is called *pot-metal glass*: the other is coloured only on one side of the sheet, and is termed *covered*, or *coated glass*; i. e. white glass covered with a coat of pot-metal colour^b.

Red, or *ruby glass*, is almost invariably *coated glass*¹; other kinds of coloured glass are generally *pot-metal glass*; but they are not unfrequently manufactured as *coated glass*.

Coloured glass is formed by adding a certain quantity of colouring matter to the materials of white glass², and incorporating these ingredients by fusion in the melting-pot of the glass-house. It is manufactured into sheets¹ in the same way as white glass, and is of the same transparency.

The Glass Painter possesses the power of colouring white glass, and even of varying the tints of coloured glass, by the use of *stains*, and *enamel colours*.

All shades of yellow, to a full orange red, may be imparted to white glass by staining it^m: other colours are produced by means of enamels.

A stain penetrates the glass to some little depth, and is properly as transparent as white glass itself.

^a See note *c* at the end of this Introduction.

^b See note *d* at the end of this Introduction.

¹ The reason to be assigned for the peculiar manufacture of Ruby glass is, that its colouring matter is so intense, that it would appear opaque, if formed into a sheet by itself of the usual thickness of an ordinary piece of glass. The colouring matter therefore requires a *backing* of white glass, to render the sheet thick and strong enough to resist the weather.

² The compositions of various coloured glasses are described at large in Fromberg's *Handbuch der Glasmalerei*. Quedlinburg and Leipzig, 1844; (a translation of which, by my friend Henry James Clarke, Esq., is printed in Weale's *Quarterly Papers*,) and in p. 268 of Dr. Lardner's work, mentioned in note *a* at the end of this Introduction.

¹ It is usually made into cylinders, which are opened out into sheets.

^m See note *e* at the end of this Introduction.

An enamel colourⁿ only adheres to the surface of the glass, without penetrating it, and is always more or less opaque.

There are three distinct systems of glass painting, which for convenience sake may be termed the *Mosaic method*; the *Enamel method*; and the *Mosaic enamel method*.

Of these the most simple is the Mosaic method. Under this system, glass paintings are composed of white glass,—if they are meant to be white, or only coloured with yellow, brown, and black,—or else they are composed of different pieces of white and coloured glass, arranged like a mosaic, in case they are intended to display a greater variety of colours. The pieces of white glass are cut to correspond with such parts of the design as are white, or white and yellow; and the coloured pieces with those parts of the design which are otherwise coloured.

The glass painter in the Mosaic style uses but two pigments;—a stain which produces a yellow tint, and a brown enamel, called *enamel brown*. The main outlines of the design are formed, when the painting is finished, by the *leads* which surround and connect the various pieces of glass together: and the subordinate outlines and all the shadows, as well as all the brown and black parts^o, are executed by means of the enamel brown; with *which colour alone* a work done according to the Mosaic system, can be said to be *painted*. The yellow stain is merely used as a colour.

It therefore appears, that under the Mosaic method each colour of the design, except yellow, brown, and black, must be represented by a separate piece of glass. A limited number of colours may however be exhibited on the same piece of glass, by the following processes. Part of a piece

ⁿ See note *f* at the end of this Introduction.

^o See note *g* at the end of this Introduction.

of blue glass may be changed to green, by means of the yellow stain. The coloured surface of coated glass may be destroyed by attrition, or the application of fluoric acid^p; and the white glass beneath it exposed to view. This may of course be wholly or in part stained yellow, like any other white glass. Two shades of yellow may also be produced on the same piece of glass, by staining some parts twice over. But, unless he adopt one or other of the above-mentioned processes, the glass painter under the Mosaic system cannot have more than one colour on the same piece of glass. A variety of *tint*, or *depth*, may often be observed in the same piece of coloured glass, arising from some accident in its manufacture^q. Of this a skilful glass painter will always avail himself to correct as much as possible the stiffness of colouring necessarily belonging to this system of glass painting.

Under the Enamel method, which is the most difficult of accomplishment, coloured glass is not used under any circumstances, the picture being painted on white glass, with enamel colours and stains.

The Mosaic enamel method consists in a combination of the two former processes; white and coloured glass, as well as every variety of enamel colour and stain, being employed in it.

The practical course of proceeding under each of these three methods is nearly alike.

A cartoon of the design is made, upon which are also marked the shapes and sizes of the various pieces of glass. The glass is cut to these forms, and is afterwards painted, and *burnt*, i. e. heated to redness in a furnace or *kiln*, which fixes the enamel colours, and causes the stains to operate. The number of burnings to which the glass is subjected

^p This is the only acid known to rapidly corrode glass.

^q This appearance generally arises

from an inequality in the thickness of the sheet in pot-metal glass, and of the colouring matter in coated glass.

varies according to circumstances. It is in general sufficient to burn glass painted with only one enamel colour, once or twice; the self-same operation sufficing also to give effect to the stain, if any is used. Where several enamel colours are employed, it is necessary to burn the glass more frequently; each colour, in general, requiring to be fixed by a separate burning.

It only then remains to *lead the glass together*, and to put it up in its place^r.

The Mosaic system of glass painting, as now practised, may, I think, be considered a *revival* of the system which prevailed throughout the middle ages, and until the middle of the sixteenth century^s. The glass employed during this period is similar to the modern in its general character, but materially differs from it both in *texture* and *colour*. These differences are the more perceptible in proportion to the antiquity of the glass. It seems to have been always painted, burnt, and leaded together, nearly as at present^t.

The Mosaic system of glass painting is admirably adapted to the nature of the material. It is however unsuited for *mere* picturesque effect, owing to the nature of its colouring, which being produced by broad pieces of glass, whose tints can scarcely be varied either in the lights or shadows, (the latter being represented by means of the enamel brown,) imparts to works executed in this style the flat and hard, though brilliant character of an ancient oil painting^u.

The revival of art in the sixteenth century, and the extraordinary efforts then achieved in oil painting, by which the hard and dry illumination of the middle ages was trans-

^r See note *h* at the end of this Introduction.

^s See note *i* at the end of this Introduction.

^t See note *k* at the end of this Introduction.

^u It was, I believe, the ancient prac-

tice in oil painting, to paint for instance a red drapery, at first entirely red, and afterwards to represent its folds, by relieving the light parts with white paint, and occasionally deepening the darkest shadows with brown, or some other dark colour.

formed into a beautiful picture, glowing with the varied tints of nature, and expressing to the eye, by a nice gradation of colouring, the relative position of near and distant objects, seem to have excited the ambition of the glass painters. Not content with carrying Mosaic glass painting to the highest pitch of perfection it has hitherto attained, and with borrowing the excellent drawing and composition of the oil and fresco painters, they strove to render their own art more completely an imitation of nature, and to produce in a *transparent* material the atmospheric and picturesque effects so successfully exhibited by the *reflective surfaces* of oil and fresco paintings. The facility of applying colour to glass with the brush, at the pleasure of the artist, afforded by the discovery of the various enamel colours, about the middle of the sixteenth century*, soon led to their extensive employment. It was not however until the eighteenth century that they entirely superseded the use of coloured glasses in large works †.

The introduction of enamels, though it certainly occasioned a great extension of the scale of colour in glass painting, was not without its disadvantages. The paintings lost in *transparency* what they gained in variety of tint; and in proportion as their picturesque qualities were increased by the substitution of enamel colouring for coloured glass, their *depth* of colour sensibly diminished.

* Did not experience teach us how much we are indebted to chance for our boasted discoveries, it would seem unaccountable that the art of enamelling, itself of such high antiquity, should have been confined to opaque substances, until the middle of the sixteenth century. An interesting account of the process of enamelling earthenware is given in Theophilus's treatise, book ii. chap. 16, [post Appendix A.] It does not appear to differ materially from the process now in use. See Dr. Lardner's Porcelain and Glass Manufacture, chap. 6.

The art of enamelling was practised by

the ancient Egyptians upwards of 2000 years before Theophilus wrote. See Sir Gardiner Wilkinson's *Manners and Customs of the ancient Egyptians*.

† Pot-metal glass occurs in a drapery in the glass painting at the end of the library of Trinity College, Cambridge, which was executed by Peckitt, from a design of Cipriani, at the end of the last century. But both the west window of New College, Oxford, executed by Jervais in 1800, after a design by Sir Joshua Reynolds, and the windows of Arundel Castle, are entirely coloured with enamels and stains.

The practical application of enamel colours to glass, seems always to have been conducted nearly as at present. Some of the earlier examples of Enamel painting are, however, superior in transparency to the modern. This is particularly the case with Swiss glass paintings of the seventeenth, and close of the sixteenth century; in which enamel colours are constantly to be met with, firmly adhering to the glass in lumps of one-sixteenth of an inch in thickness, and so well fluxed in burning as to be nearly, if not quite, as transparent as pot-metal glass. I am not aware that these enamels have ever been successfully imitated, but modern chemical discoveries have been of late productive of enamel colours of very superior quality, both in tint and transparency, to those in general use during the last century, and former part of the present.

Having given this brief outline of the process of glass painting, I shall now proceed to offer some observations on the means by which the age of particular specimens of the art can best be ascertained. In few branches of antiquarian research will a knowledge of minute details, and the consideration of internal evidence, be found more important than in this. It is seldom that the age of a glass painting is determined by the direct testimony of a date affixed to it, or of written documents; nor can a safe conclusion always be drawn from the situation which it occupies. It might at first be supposed that the glass would not be older than the window in which it is found, especially when the principal divisions of the picture or pattern coincide with the apertures of the window; but the inference from this circumstance cannot be relied upon, since instances are known in which windows have been constructed for the reception of glass older than themselves. It is therefore only from the internal evidence afforded by the work itself, that the date of a glass painting can in general be ascer-

tained ; and this evidence is not, as in a Gothic building, presented by a few prominent features, the contour of a moulding for instance, or the form of a window, but by a variety of minute particulars, no one of which is perhaps adequate of itself to decide the question.

Some of these tests are peculiar to glass paintings, such as those afforded by the nature and texture of the material, its colour, and the mode of painting it. Some, again, it has in common with other objects ; such as the character of the drawing, the form of the letters, the architectural details, the costume of the figures, the heraldic decorations, &c. All these features are not equally trustworthy ; those derived from the general practice of the day, as regards the manufacture of the glass, and mode of painting it, are more to be relied on than those afforded by the nature of the particular subjects represented.

Each period of medieval glass painting has its distinctive style of execution, but artists were at all times prone to copy the designs of their predecessors. This may serve to account for the occasional representation in a glass painting, of the armour, costume, and architectural features of a period anterior to that of the work itself.

I shall now endeavour to shew more particularly the value of certain tests of date.

Mere *general arrangement* affords scarcely any criterion of date. The "*medallion window*"* is perhaps confined to the Early English period ; and designs extending themselves into more than one lower light of a window, can hardly be said to be earlier than the Decorated. But with these exceptions, almost every late arrangement is to be found more or less developed in the earlier styles.

The *general appearance* or *effect* of a glass painting is a

* The meaning of the term "*medallion window*," is explained in the first section of the next chapter.

feature deserving the utmost attention ; but taken alone, it affords only a sure proof that the work belongs to some general period, without conveying a more definite idea of its date. The general effect of a glass painting depends indeed almost entirely on the quality and texture of the glass employed in it. Hence it varies according to the progressive changes in the manufacture of that material. These, as might be expected, were so slow and gradual as to be hardly perceptible ; and glass, apparently of the same quality, was therefore employed during long periods of time. Owing to this circumstance, it becomes impossible to pronounce with certainty whether, for instance, an early glass painting, judging only from its general effect, is of the Early English, or early part of the Decorated period ; whether another is late Decorated, or early Perpendicular ; or whether to a third should be assigned a less general date than the space of time between the beginning of the fifteenth century, and the end of the reign of Henry the Sixth, &c.

The execution of a glass painting according to any particular mode, the first invention of which is capable of being ascertained, raises a conclusive inference that the work cannot be earlier than a certain time : but seldom affords any other criterion of its date. So the representation in a glass painting of different ornaments, costumes, armour, and architectural details ; the symbols of the alliance of families, or of individuals holding particular offices, serve in like manner to limit the antiquity of the work ; without, however, at least in the generality of cases, setting any precise bounds to its lateness. Thus for instance, the existence of the *yellow stain* in a glass painting, is a proof that it is not earlier than the fourteenth century. In like manner, a glass painting which exhibits *stippled shading*^a,

^a This term is explained in note *h* at the end of this Introduction.

or ruby glass having some of its coloured surface purposely abraded, may be pronounced not to be earlier than the fifteenth. Again, the use of *enamel colours* marks a glass painting as having been executed after the middle of the sixteenth century, while the trifling circumstance that the glass has been originally cut with *a diamond*, will denote that another work is not earlier than the seventeenth century. The representation in a glass painting of Decorated windows with flowing tracery, is an evidence that the picture was not painted until after the introduction of this feature in architecture. And the appearance of a shield bearing the private arms of a bishop impaled with those of his see, will in general raise a presumption that the work was executed during his prelacy.

The age of a glass painting is thus sometimes capable of being reduced to limits sufficiently exact for practical purposes, by the existence of a single feature, such as that last mentioned, or even by the character of the letters used in an inscription : but in general, its more precise date can be established only by the evidence afforded by the concurrence in it of a variety of different tests. It is indeed always safer to rely on such evidence, when it can be obtained, than to infer a date from a single insulated circumstance.

Of the value of the testimony afforded by a coincidence of minute particulars, in establishing the probable date of a glass painting, the following is an example.

It has before been noticed, that there is often no distinction between the general effect of an Early English, and that of an early Decorated glass painting. Recourse must therefore be had to the character of the ornament, which will in general at once decide the question of style. Supposing this to be in favour of the Decorated ; the next point is, to *what period* of the style the painting belongs.

This may sometimes be determined by the nature of the ornament itself; but the colour and quality of the glass will always conclusively shew that the specimen is *early* in the Decorated style. Another instance may be added. It is easy to distinguish a glass painting of the latter part of the reign of Edw. IV. from the earlier examples of the fifteenth century, by the yellow tint of the white glass; although it may exhibit precisely the same design and execution, and even the same costumes, as a glass painting of the time of Henry VI. As however white glass of the same colour continued in use until the end of the Cinquecento style, glass paintings not exhibiting any peculiarity of costume which may mark them as being of the reign of Edw. IV., must be referred to the period indicated by the general character of their drawing and execution.

I have endeavoured in the course of the ensuing chapter to facilitate enquiries into the date of glass paintings, and the styles to which they belong, by commencing each section with some general remarks on the effect of glass paintings of a particular period, and by afterwards describing their details as minutely as I could, at the risk of being considered prolix and tedious. I should however warn the reader against the supposition that it is possible to acquire an accurate knowledge of a pictorial art, from mere description, or the slight aids derivable from plates in such a work as the present. A book can do no more than direct his attention to certain differences in glass paintings affording sure indications of style, and by a general explanation of the process of painting upon glass, clear up some difficulties which would otherwise beset the subject. He must depend upon his own exertions for a critical knowledge of the different styles of glass paintings, which can be acquired only by minute, close, and repeated observation of existing specimens, and a habit of making careful and detailed draw-

ings of them, whenever the opportunity presents itself. I may add that a certain acquaintance with other branches of antiquities, such as architecture, and painting in general, heraldry, &c. will considerably facilitate his researches.

NOTES TO THE INTRODUCTION.

(a) The manufacture of the different kinds of white glass, and the nature of their ingredients, are minutely described in a small but clever popular work, "A Treatise on the Origin, Progressive Improvement, and Present State of the Manufacture of Porcelain and Glass." Lond. 1832: which forms part of Dr. Lardner's Cabinet Cyclopædia.

Until the last few years, only the two sorts of white glass known by the names of *crown glass*, and *broad*, or *spread glass*, which last is also called *common window glass*, were employed in glass paintings. The first kind was, until lately, clearer and more free from colour than the last, which being coarser and cheaper, was more commonly used for this purpose. The broad glass, however, never possessed any other colour than that accidentally imparted to it by the impurity of its materials. Owing to continued improvements in its manufacture, broad glass has gradually become almost, if not quite, as colourless as crown glass; a circumstance which renders it unfit for many glass paintings. A new description of white glass, sometimes called *cathedral glass*, has been in consequence manufactured of late, expressly for glass painters, and has been extensively employed in lieu of broad glass. *Flint glass*, into the composition of which *lead* enters, and which, from being highly taxed, was formerly only used for decanters, drinking glasses, and other utensils, is beginning to be employed in painted windows. It is either white or coloured.

(b) There are various modes of forming glass into sheets, but it is only necessary for the purposes of this work to describe two of them.

One process, called *flashing*, consists in making the glass into circular tables, or sheets. It is at present appropriated to crown glass.

The workman is provided with a long round iron tube or blow-pipe, one end of which he dips into the melted metal in the pot, until he has collected upon it a sufficient mass of glass. This he moulds into a cylindrical form, by rolling it on a smooth plate of iron called a *marver*; and then applying his mouth to the other end of the tube, blows down it into the soft mass of glass, which yields to his breath, and gradually assumes a globular shape. When this has been sufficiently expanded

by blowing, another workman approaches with a solid round iron bar in his hand, called a *punt*, having a small lump of melted glass at one end of it. This on being applied to that side of the globe which is opposite to the blow-pipe, and which has previously been somewhat flattened, immediately adheres to it. The blow-pipe is now disengaged from the glass, by wetting the part round it with water, and its removal leaves a small circular hole in that part of the glass. The glass thus attached to the punt, after having been sufficiently softened by heat, is trundled round like a mop, "slowly at first, and then more and more quickly, when the glass yields to the centrifugal impulse; its diameter becomes greater and greater, the hole just mentioned expands proportionably; and when in this continued progression the doubled portion opposite the iron rod, and between the periphery of the glass and the orifice, is diminished to an annulus or ring only a few inches wide; this in an unaccountable manner instantly flies completely open, and the glass is converted into a plane disc of fifty to sixty inches diameter, having an uniform thickness throughout the entire plate, with the exception of" its rim or selvage, and "the spot where it is attached to the" punt, "and where there is a knot or lump which is called a *bull's eye*," or centre. The punt is then detached from the bull's eye, and the sheet of glass, after having been annealed in the annealing oven or *leat*, is fit for use. | This description will be rendered perfectly intelligible by a reference to the plates in Dr. Lardner's work before mentioned, from which, see p. 184, the above extract is taken.

The other method consists in making glass into *shades* or *cylinders*, or *muffs*, as they are sometimes called, which are afterwards opened and flattened out into sheets.

This process differs but little from that of blowing *plate* glass, described and illustrated by diagrams in Dr. Lardner's before-mentioned work, p. 211 et seq.

A hollow globule of glass is formed as before mentioned, and brought to the shape of a long bladder, by swinging the blow-pipe about. Its end opposite to the blow-pipe is then perforated with a small circular hole. The workman now seats himself in a chair, having two long horizontal and parallel arms, on which he rolls the blow-pipe backwards and forwards with one hand, and with the other at the same time gradually widens the hole, and fashions the glass with a pair of shears until it assumes the form of a cylinder throughout its whole length, except towards the end where it is connected with the blow-pipe. A punt, having attached to its end a red-hot piece of glass, either in the shape of a flat circular plate, rather wider than the mouth of the

cylinder, or consisting of a straight piece crossing the end of the punt like a T, is then applied to the already formed mouth of the cylinder, and immediately adheres to it. The glass is then detached from the blow-pipe, a rotary motion is given to it by trundling the punt up and down the arms of the chair, and by a repetition of the process already described the little hole left by the removal of the blow-pipe is enlarged into a mouth, of the same diameter as the rest of the cylinder. The cylinder is then disconnected from the glass at the end of the punt, and after having had one side cut or slit up, is placed in the annealing oven, with its cut side uppermost, and becoming softened by the heat, is easily opened with an iron instrument, and spread out into a flat sheet. Flint glass, both white and coloured, is usually thus formed into sheets.

(c) One kind of pot-metal glass indeed is called *plated glass*, and consists of two sheets or thicknesses of pot-metal glass, of different colours, closely united together. By this means a tint is produced differing from that which would be obtained by the fusion of the two colours together in the melting-pot of the glass-house. I have not thought it worth while to embarrass the text with this exception to the general rule, that pot-metal glass is of the same colour throughout.

(d) *Coated glass* is formed by the workman first dipping his blow-pipe into a pot containing white glass, and afterwards into a pot containing coloured glass; or vice versâ. The glass when formed into a sheet is thus coated with coloured glass only on one side. Sometimes the blow-pipe is again dipped into the pot of white glass, in which case the colour will be enclosed within two layers of white glass.

Coated glass is sometimes called *flushed glass*, but this term seems rather to point to the mode in which it is manufactured into sheets. It is now, I believe, more usually made into cylinders and opened out into sheets.

(e) The colour produced by a stain varies much according to the texture of the glass, and the heat of the furnace: soft glass taking a deeper stain than hard glass, and a high temperature greatly increasing the colour. On this account, if the glass is unequally heated, it will be stained of a deeper tint in some parts than in others. If exposed to a too violent heat, the stain is apt to turn red, or to become opaque. When overfired, it leaves a peculiar mark on the surface of the glass, varying from yellow to a sort of blue. The composition of the yellow stain is given, and its operation accounted for, in Fromberg's *Handbuch der Glasmalerei*, part i. chap. 2; and in Dr. Lardner's *Porcelain and Glass Manufacture*, p. 273, 298.

(f) *An enamel colour* is composed of some particular colouring matter mixed with *flux*, i. e. soft glass which will melt at a lower temperature

than the glass intended to be painted with the enamel. In proportion as the glass cools after having been burnt in the kiln, the flux, which has been melted by the process, hardens, and together with the colouring matter it embraces, adheres closely to the glass.

The imperfect transparency of glass coloured with an enamel, no doubt arises from the absence of such a complete fusion and liquefaction of the flux in the glass painter's kiln, as is effected of the *silex*, in the manufacture of coloured glass, by the more intense and longer sustained heat of the melting-pot of the glass-house.

The composition of various enamels is described in Fromberg's *Handbuch der Glasmalerei*; and in Dr. Lardner's work before mentioned, chap. 14. See also a translation of a work by Dr. Gessert, "The Art of Painting on Glass, or Glass Staining," in Weale's *Quarterly Papers*, Part II.

The enamel brown is made either from iron or copper. Iron produces a reddish brown pigment, copper a cold greenish black pigment.

(g) As the enamel brown is an opaque colour, any gradation of tint from brown to absolute blackness may be produced with it, simply by increasing the thickness of the coat of paint.

(h) The following is a brief description of the course now generally pursued of painting glass, according to the *Mosaic method*.

If the work is intended to be executed merely in outline, without any shading, the design is copied on the glass, by simply laying the glass upon the drawing, and tracing with enamel brown upon the glass the pattern seen through it. When a piece of coloured glass is so dark as to obscure the pattern, a tracing of the latter is first made on a piece of white glass, and placed behind the coloured, through which the pattern is rendered distinctly visible by holding both pieces of glass to the light. A similar method of transferring the design to the glass is sometimes adopted, even when the painting is intended to be more elaborate; but the preferable way is, to draw the outlines of the cartoon on the *back* of the pieces of glass with Indian ink, or other water colours, leaving the *front* of the glass unincumbered for the free exercise of the artist's pencil.

Recourse is then had to an easel, formed of large pieces of glass held in a frame opposite to the light. The pieces of glass intended to be painted, are attached, in their order, to the glass of the easel, sometimes by means of wax, but more properly by little bits of paper pasted to their edges, and to the glass of the easel.

If the painting is intended to be *smear shaded*, the artist, if the outlines have not been already drawn upon the glass with enamel brown,

proceeds to put them in: using for this purpose the enamel brown mixed to a proper consistency either with a combination of spirits of turpentine, and *fat turpentine*, i. e. spirits of turpentine thickened by evaporation; or with gum Senegal water, this gum possessing the property of not blistering with heat. The next step is to execute the shadows and *diapers*. The artist having mixed some enamel brown as before mentioned, but of thinner consistency, smears it with a brush over the parts intended to be in shadow, softening it off towards the extremities of the shadows by gradually raising the brush from off the glass as he passes it along. He thickens the coat of colour in the deepest parts of the shadows; and when this is not strong enough, he applies a similar coating to the back of the glass, which must of course be removed from the easel for this purpose. Shadows thus formed always have a streaky, and uneven appearance, owing to the unequal thickness of the coat of colour caused by the tracks left by the brush in its course. It is impossible to produce *deep* shadows in this way without at the same time rendering them opaque. In like manner a coloured ground is smeared over so much of the glass as is intended to be diapered, part of which, when dry, is scraped off with a pointed stick or needle, so as to leave the diaper itself clear and transparent.

When the picture is intended to be *stipple shaded*, the artist either puts in the outlines at first with enamel brown, or leaves them out until the shading is finished. In either case he covers the whole of the glass with a ground of enamel brown mixed with gum water, and dabbles or *stipples* it all over, before it has time to dry, with a large soft long-haired brush, held at right angles to the plane of the glass, so that the tips of its hairs only are suffered to touch the glass. This process entirely obliterates the smears left in the ground on its first application, and renders it soft, and granulated in appearance. Stipple shadows, of whatever depth, are always more transparent than smear shadows; for the colour is drawn up into little lumps by the action of the hairs of the brush, leaving the interstices comparatively free from colour. When the ground is dry, the artist scrapes it away from the lights of the picture, and having previously moistened it with oil of spike lavender, deepens the shadows, where necessary, by a fresh application of colour, mixed, however, with turpentine, which he softens off as it dries, by dotting it with a long-haired brush. He also sometimes heightens the shadows, by laying a similar coat of colour on the back of the glass opposite to them. Diaper patterns are executed exactly as before described, a stippled ground having been laid all over the glass.

The stain, when used, is mixed with water, and floated on the back

of the glass, usually to the thickness of a sixteenth of an inch, just before it is put into the kiln.

The furnace, or kiln, in which the glass is burnt, consists of an iron box furnished with sliding shelves, and enclosed within an oven of brick-work^b. The shelves are covered with powdered whiting, upon which the glass is laid flat, the painted side upwards, and the side to be stained downwards. The fire is maintained on a grating below the box, which is enveloped by the flame, the vent of the furnace being at the top of the oven. When the glass has been sufficiently burnt, which is ascertained by looking into the box, through a hole provided for that purpose in the brickwork with which the mouth of the oven has been closed up previously to kindling the fire, the fire is raked off the grating, and every aperture having been carefully stopped up, the glass is suffered to cool gradually, and anneal itself. After the glass has been burnt, and taken out of the kiln, it is necessary to wash or brush off the residuum of the stain, and this having been removed, the glass underneath, if the fire has been hot enough, will be found to be yellow.

The glazier finishes the process; he *leads the glass together*, i. e. surrounds each piece with a strip of lead, having a groove on each side to hold the edge of the glass, according to the pattern marked on the cartoon, joining the various pieces of lead with solder. The lead-work is rendered less pervious to wind and moisture, and much stronger, by being *cemented*, i. e. a kind of cement is rubbed in between the glass and the lead, which fills up the interstices, and hardens by exposure to the weather. Every glass painting of any magnitude, in order to avoid breakage and unnecessary trouble in putting it up, is divided by the glazier into convenient portions, each containing several square superficial feet of glass, called *glazing panels*. Each of these is surrounded with a strong lead, and can be moved about by itself. The glazing panels are set up in their order, and secured by being attached to the *saddle bars*^c of the window, i. e. to an iron framework let into the stone-work.

Under the *Enamel system* the glass is painted with enamels much in the same way as canvass or paper is painted with oil or water-colour, and they are applied to the glass in general as in an ordinary miniature painting, by repeated *hatchings* with a small pencil. The colour which requires the greatest heat is put on first, and burnt; and that which requires the least heat, last, so that each colour is fixed at a temperature

^b A representation of a glass painter's kiln is given in "L'Art de la peinture sur verre, et de la vitrerie, par feu M. le Vieil," plate ii.

^c These were in the middle of the

fourteenth century termed "sondleta," or "sondelets;" and the upright iron bars which passed through them, "standards." Smith's Antiq. of Westminster, p. 196, et seq.

not sufficiently high to disturb the flux, or alter the tint of any of its predecessors. The glass, when burnt, is either leaded together, or secured with *putty* in a metallic framework moulded to the forms of the panes.

In the *Mosaic enamel system*, coloured glass is often shaded and diapered with an enamel colour of the same tint as itself. The colour is sometimes floated on with water, but more commonly applied with a pencil, as under the former method. The pointed stick or needle is often used to scrape the colour off the glass, wherever an intense light is required.

(*g*) The merit of admiring *ancient* painted glass, and first bringing it into favourable notice, belongs to Horace Walpole; but the actual revival of the ancient system of glass painting was accomplished principally by two distinguished glass painters,—the late Mr. Miller, and Mr. Willement. The latter was the first to observe in his works, the differences of style.

(*h*) The following particulars relate to the *ancient* method of making and painting glass:—

White glass, according to the Treatise of Theophilus, chap. iv. [see the translation, post Appendix A.] was composed of wood ashes and sand, mixed together in certain proportions, and *fritted*, previously to being placed in the melting-pot. Many kinds of coloured glass are mentioned in that Treatise, chap. xii., as being made from the coloured glass found in the antique mosaic works and ancient vessels. Theophilus calls the little lumps of blue glass used in the mosaics, *sapphires*^d, and particularly says that they were fused with white glass, in order to make blue glass for windows. This, I think, sufficiently explains Abbot Suger's statement, that sapphires were used in the painted glass at St. Denys.

The supply of colouring materials from the above source must soon have been exhausted. Eraclius^e gives various receipts for colouring glass with different metallic substances. *Lead* is mentioned in the title of one of the lost chapters of Theophilus, and in chapter xxxi., which describes the making of glass rings; and also by Eraclius, as an ingredient of glass, which, as it would seem, however, was not used for windows, but for the manufacture of utensils. This glass would therefore answer to *flint glass*, the softness and strong refractive power of which, arising from the presence of lead in its composition, (see Dr. Lardner's Treatise, p. 161,) have, for a long time past, caused it to be appropriated to the formation of decanters, and other glass wares. Drinking glasses, &c. made of flint glass, like the modern, may be found as early as the reign

^d See note to Appendix A.

^e Vide note to Appendix A.

of Charles I. They are more brilliant in appearance, but are much thicker, heavier, and more brittle, than the old Venetian glasses, which are light as feathers, and composed of a tough horn-like material.

Flint glass, as stated in a former note, has only lately been used for window glass.

It appears from the Treatise of Theophilus, chapters vi. and ix., post Appendix A, that both white and coloured glass were formed into cylinders, which were opened and flattened out into sheets, nearly as at present: the introduction of the *punt*, in addition to the blow-pipe, being the chief improvement upon the ancient system. The process of annealing the sheets is identical with that now in use.

That the art of *flashing* glass was known at least as early as the beginning of the fifteenth century, is proved by the representations in the pictures of John Van Eyck and others, of *round glass*, each pane of which is a miniature sheet of flashed glass, as is more fully described in the course of my remarks on the Perpendicular style. I myself have seen in a glass painting at Mells church, Somersetshire, of the latter half of the fifteenth century, two *bull's eyes*, in pieces of white glass, each as large as the bull's eye of a modern sheet of crown glass; and I have often noticed in Early English and Decorated glass, *striae*, or waves, of segmental shape, which I am strongly inclined to think were formed by flashing the glass.

All ancient window glass was originally clear and transparent. It perhaps was not, at least until the sixteenth century, so perfectly transparent as modern glass, being, in general, less homogeneous than it, owing to the imperfect state of the manufacture formerly; but it was, when new, sufficiently clear to admit of distant objects being easily seen through it. The *film*, which usually subdues the brilliancy of old glass, and imparts to it a fine harmonious tone, is but the effect of the surface of the glass having become decomposed by the action of the weather, or of extraneous substances, such as lichens, or the rust from the saddle bars, &c. adhering to it. Decomposition takes place in glass in different ways and degrees, according to its texture, the manner in which it is painted, and its position. The glass on the south side of a building is always more corroded than that on the north side; the glass which contains the least portion of alkaline matter seems most effectually to resist the action of the atmosphere; and the painting upon it or even the staining, sometimes preserves it from injury, sometimes hastens its decay. In some cases the corrosion on the back of the glass is confined to those parts which are opposite to the shadows and painted outlines, or at least is most active in these parts; in other cases, especially in Early

English and early Decorated examples, the original thickness of the glass is preserved only in those parts which are opposite the painted outlines, the course of which may therefore be traced on the back of the sheet by corresponding lines a little raised above the general surface.

Some glass is perforated to some little depth with small round holes; other glass has its whole surface eaten away: all old glass is more or less covered with a slight film on both sides, but upon breaking it, the interior of the sheet is always found to be clear and transparent, the obscurity being confined to its surface.

The white glass varied much in tint, even in early times, being sometimes nearly colourless, sometimes so blue or green as to seem as if it had been purposely tinted. I am persuaded, however, that its colour was accidental, and arose merely from the impurity of its elements.

The use of manganese, to correct the yellowness of white glass, does not appear to be earlier than the reign of Elizabeth. Its presence is easily detected, especially in Venetian and French glass, by the inky purple tint it imparts to the material. The earliest white glass, as well as coloured glass, often has a *slaty* texture, i. e. is apt to chip off in layers like slate. This property may arise from an imperfect amalgamation of the glass, already on the blow-pipe, with that taken up upon it by a subsequent dipping into the melting-pot, in order to increase the mass at the end of the rod previously to blowing it. The white glass of the seventeenth century resembles modern *broad glass*.

Coloured glass, previously to the middle of the fifteenth century, is in general richer, and less crude than modern coloured glass. This is (supposing that we employ the same materials that the ancients did) probably owing to our improvements in chemistry, by which the modern colouring matter is more completely purified from extraneous substances than the ancient¹.

Of all coloured glasses, the ruby varies most in appearance, according to its date. The streakiness of the colour of ruby glass, prior to the beginning of the fifteenth century, has occasioned M. le Vieil and others to conjecture that it was applied like an enamel colour, with a brush, and burnt in afterwards. The better opinion, however, is, that the ancient ruby was made in the same way as modern ruby. I have carefully examined a great many specimens of all dates, from about the middle of the twelfth century, and have invariably found the glass to be

¹ It has been conjectured, that the fine blue colour in old porcelain owes its peculiar depth and richness to the presence of arsenic, which the Chinese, in

their own preparation of the pigment, were unable to expel from the cobalt ore. See Lardner's "Porcelain and Glass Manufacture," p. 114.


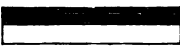

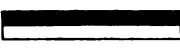

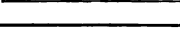

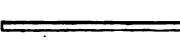
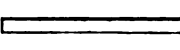
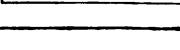

coloured only on one side of the sheet. M. le Vieil, however, mentions his having met with early specimens coloured throughout the sheet, and Dr. Gessert thinks that the invention of coating ruby glass took place in the fourteenth century, and adds that Schmithals, a profound and trustworthy investigator of ancient coloured glasses, found all those of the twelfth and thirteenth centuries coloured throughout the whole mass. The probability is, that the *coated* method of making ruby was an improvement on its original manufacture as an ordinary pot-metal. The chapter of Theophilus, which, judging from its title, treated of ruby glass, and would most likely have set the question at rest, is unfortunately lost.

Although doubts may still exist as to the precise mode of manufacturing ancient ruby, there can be none as to the great thickness of its colouring matter in the twelfth, thirteenth, and fourteenth centuries, during which period it most plainly exhibited the streaky appearance before alluded to.

The accompanying diagram represents full-sized sections of pieces of ancient ruby, selected quite at random, and arranged in centuries, but not according to their order of time in each century. The dark lines at the upper part of each sheet are intended to shew the depth of its colouring matter. The various sheets will be found to agree in thickness with the ordinary white and coloured glass of the corresponding periods.

The colouring matter of ruby glass, until the beginning of the fifteenth century, when seen in section with the naked eye, seems to be collected into several thin strata, parallel to the surface of the sheet, of unequal thickness, and imbedded in white glass, usually of a more yellow hue than that of which the rest of the sheet is composed. When examined, however, with a powerful microscope, the portion of white

Cut 1.

COMPARATIVE VIEW OF THE THICKNESS OF COLOUR ON RUBY GLASS.	
Twelfth and thirteenth centuries.	 1
	 2
	 3
Fourteenth century.	 4
	 5
	 6
Fifteenth and sixteenth centuries.	 7
	 8
	 9
Nineteenth century.	 10
	 11

glass appears to be almost filled with an infinite number of the thinnest possible parallel laminæ of colour, closer together in some places than in others, which produces the stratified appearance before mentioned. The multitude of these laminæ is so great as, I should say, to preclude the possibility of their having been occasioned by successive dippings of the blow-pipe alternately into white and coloured glass. Indeed the occasional liability of the colouring matter to be chipped off like slate in layers, not corresponding to the principal laminæ of colour, would tend to shew that the blow-pipe was repeatedly dipped into *coloured* glass; while, in other specimens, the perfect coherence of the mass of colouring matter, coupled with its imperfect adhesion to the white glass forming the rest of the sheet, would seem to prove that the colouring matter was, by one act of the workman, conglomerated about the mass of white glass, at the end of the rod, previously to blowing it.

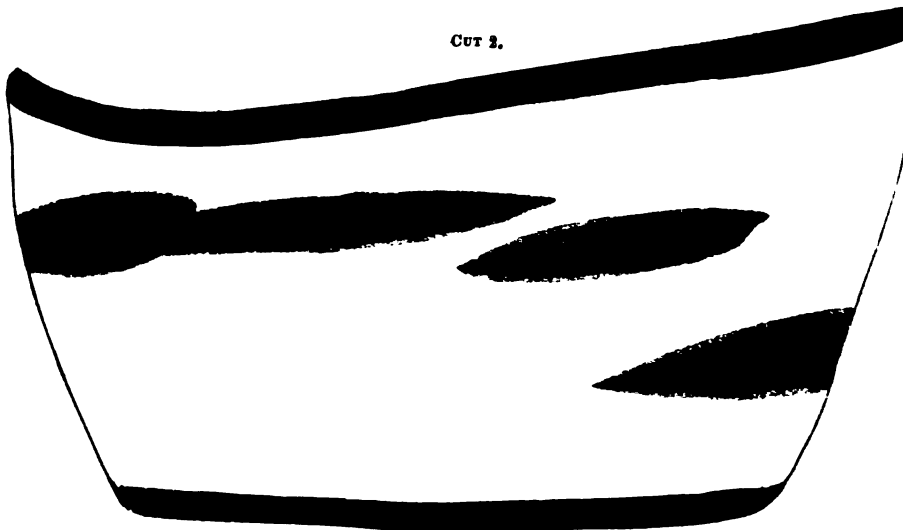
After the beginning of the fifteenth century, the ruby colour appears like a thin dense stratum on one side of the sheet, not thicker than a sheet of writing paper, which is sometimes, as in No. 8 in the diagram, covered with a thin layer of white glass. This stratum, however, when highly magnified, presents the same appearance as the entire mass of colouring matter in the earlier specimens, being composed of a vast number of minute laminæ of colour. The colour on modern ruby is equally thin, and bears similar marks of construction. It is also sometimes covered with a thin coat of white glass, by the workman dipping the blow-pipe again into white glass, after he has sufficiently coated with coloured glass the lump of white glass at the end of the instrument. For these and other reasons I consider the modern ruby, and that of the fifteenth and sixteenth centuries, to be identical.

The thinness of the coat of colouring matter on the later specimens of ruby is owing to its greater power; for the ancient ruby, notwithstanding the greater thickness of its coat, is not deeper in tint than the modern, although its appearance is more varied and richer.

I must not leave this part of the subject without some mention of a peculiar kind of glass, which seems to have been invented in the early part of the sixteenth century, and which, for convenience sake, may be called *sprinkled ruby*, i. e. white glass sprinkled with red spots. The accompanying cut is intended to represent a piece of this glass; the form of the red spots being shewn by the light lines in the engraving. See woodcut on the top of the next page.

It appears to me that the spots were put on in manufacturing the glass, probably by sprinkling a piece of white glass, whilst on the blow-pipe, with melted ruby glass. The spots certainly bear the mark of

CUT 2.



SPRINKLED RUBY.

intense heat; they are as transparent as ordinary ruby, and like it, form a thin coating on the surface of the glass. Those on the same piece of glass are always in the same direction. The spots are generally of a bright scarlet tint; sometimes they are more of a blood colour. The colour is always deeper in the middle than at the edges of the spot. Glass of this kind was extensively used by artists, especially of the Flemish school, until the middle of the sixteenth century, in representing pieces of marble in architectural subjects, and for other purposes. The subject of the annexed cut formed part of the arm and wrist of our Saviour on the cross; the ruby spots representing the blood stains proceeding from the palm of the hand.

I myself have not met with white glass coated with any other colour than ruby earlier than the end of the fifteenth century, or the beginning of the sixteenth, about which time coated blue glass appears to have been introduced. Coated pink, and coated green glass, seem to be of still later invention.

Some kinds of ancient purple glass closely resemble what is now

* Assertions to the contrary are however made: for instance, Langlois, "Essai sur la peinture sur verre," p. 142, affirms that Suger's *blue* glass at St. Denys is coated glass, or, as he describes it, "white glass covered with a layer of

enamel." There seems to be very little doubt that the famous Portland vase is made of *blue* glass coated with white glass. The art of coating glass may therefore be considered of high antiquity.

termed *plated glass*, but exhibit nearly the same peculiarities in texture, as the ancient ruby. I allude to those tints of purple which are produced by distinct layers, or strata, of light red glass, and light blue glass, in the same sheet. I possess, through the kindness of Mr. Ward, the eminent glass painter, a few small fragments of glass of this description. Two of them are French glass of the early part of the thirteenth century, and correspond in thickness with the sheets of ruby numbered 3 and 4 in the above-mentioned diagram. They are each composed of two strata, one of light blue glass, equal to about one third of the entire thickness of the sheet; the other of a mass of white glass, full of thin horizontal laminæ of light red glass, exactly resembling in form the coloured laminæ which occur in a piece of ruby of the thirteenth century. Two other fragments are, one of English, the other of French glass, of the middle of the fifteenth century, and correspond in thickness with the sheets of ruby numbered 8 and 9 in the diagram. Each of these fragments is composed of three strata, two of blue glass, each equal to about one fourth of the entire thickness of the sheet, and which enclose between them a stratum, which in the thinnest sheet appears to be an uniform layer of light red glass, but in the thickest sheet is a layer of white glass, filled with a quantity of horizontal laminæ of light red glass, like those in the earliest specimens, but more numerous, thinner in substance, and closer together.

It would seem from existing documents, that in the infancy of glass painting, the glass was made by the same persons who painted it. It is evident, however, that the two processes were considered distinct as early at least as the middle of the fourteenth century, and that the glass painters purchased the glass they painted.

Theophilus describes the composition of the brown enamel used for outlines and shading. [See post Appendix A, chap. xix.] The mention of "arnement," i. e. black, for the painting of the glass, is made in the account rolls of the expenses of St. Stephen's chapel in the 25th and 26th Ed. III. [see Smith's *Antiq. of Westminster*, 4to. Lond. 1807, p. 198.] it was probably used for the same purpose. The enamel brown formerly used, fluxed better than the modern. It is usually of a cool grey purple tint; the modern enamel brown is too apt to have a reddish foxy hue.

The yellow stain does not appear to have been known before the beginning of the fourteenth century. The earliest example that I have met with is certainly not earlier than the close of Edw. I.'s reign, or the beginning of Edw. II.'s. Large quantities of silver filings are mentioned as having been purchased for the painting of the glass at various times,

in the above-mentioned account rolls. The employment of the yellow stain, to change blue glass to green, &c., is as early as the middle of the fourteenth century. The practice of double staining glass does not seem to have arisen before the sixteenth century.

The whole process of constructing a painted window is minutely described in the treatise of Theophilus. [See Appendix A.]

The glass was then painted nearly as at present, supposing the *Mosaic method* to be adopted, as well as the use of *smear shadows*. *Stippled shading* was not introduced until towards the end of the fourteenth century, or the beginning of the fifteenth.

It appears from the before-mentioned account rolls, that in the middle of the fourteenth century, the designs for the windows were made in general by the master glaziers, who, judging from the wages they received, were deemed equal in skill to the chief practitioners in other branches of art; and that the glass was painted, and leaded together by inferior workmen. It is owing perhaps to this circumstance that ancient glass paintings are almost always better designed than executed. [For further particulars relating to the wages paid to glass painters, see Appendix B.] The principle of employing artists of the highest celebrity to make designs for painted windows was adhered to during the middle ages, and does not seem to have been utterly abandoned until the present century. Holbein is said to have furnished the cartoons for the windows of King's chapel, Cambridge, and the names of several other distinguished artists are preserved, as the designers of many coeval, and later works on the continent^h. It is reasonable to suppose, that many works of inferior, or of mere ornamental character, were formerly executed in the first instance upon the glass, without any previous delineation on a cartoon. Indeed inscriptions, heraldic bearings, scroll-works, &c., &c., often appear, on minute examination, to have been sketched upon the glass, with a faint line of enamel brown, preparatory to being carefully painted with strong colour in the usual manner.

The power of the diamond to scratch glass, must have been known at a comparatively early date, if credit is to be given to the stories of Francis I. and Queen Elizabeth writing on glass with a diamond set in a ring. It does not, however, seem to have been employed to cut glass before the beginning of the seventeenth century, previously to which

^h I am not aware that the famous Van Dyck, though the son of a glass painter, (see *Le Vieil*, *Hist. de la Peinture sur verre*, &c. p. 54,) ever painted glass. The Rev. H. H. Norris, of Hackney, however, possesses a large engraving of the Crucifixion, which appears well adapted for

a glass painting. It bears the following inscription.

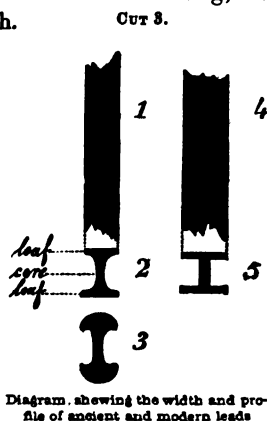
"Anton. Van Dÿck invenit. Erasmus Quellinus delineavit. Matheus Borckens sculpsit, et excudit. Antwerpise cum privilegio."

time the practice of cutting glass described by Theophilus seems to have prevailed with little variation.

The pieces of glass were first roughly wrought out by means of a hot iron held to the glass, which caused it to crack, and were then reduced to the exact shape required, by chipping away their edges with an iron hook, called in Theophilus "*grosairum ferrum*," and at the present day a *grozing iron*. The term "*groisour*" or "*croisour*," which occurs in the before-mentioned account rolls, means the same thing. It is easy to ascertain whether glass has been cut with a diamond, or wrought into shape with the grozing iron, by the smoothness of its edges in the one case, and their roughness and irregularity in the other. This circumstance will, until the forgers of glass paintings become aware of it, continue to be an useful test of the genuineness of a glass painting, and serve to determine whether it indeed be an original work, or only a compilation of fragments of the same date. The use of the diamond must have effected a considerable saving of the glazier's time; but as extraordinary specimens of skilful glass cutting may be observed in mediæval as in modern works.

It appears that the glass was formerly arranged in the kiln several layers deep, with only ashes or lime between them, instead of, as now, being placed in single layers on iron plates covered with whiting. This circumstance will serve to account both for the crooked and undulating surface of many pieces of old glass, which may be presumed not to have been laid perfectly flat in the kiln, and also for the frequent appearance of a faint yellow stain on old white glass, in places where its presence can only be accounted for by an accident. The stain having the property of penetrating through a thin stratum of lime or whiting, and slightly tinging the glass immediately beneath.

The leads used until the middle of the seventeenth century, are nearly of one uniform width, and are much narrower *in the leaf* than the common modern leads. That this was the case, can be proved not only by the existence of the original leads themselves, but more satisfactorily perhaps by the black lines drawn upon the glass, with which the glass painters were accustomed sometimes to produce the effect of leads, without unnecessarily cutting the glass. Many instances of this practice may be seen in plate 19.



Diagram, shewing the width and profile of ancient and modern leads

Fig. 1. in the annexed cut represents an ancient lead of the usual width; fig. 2. its profile; fig. 3. the profile of a German lead of the early part of the fourteenth century; fig. 4. a piece of modern *fret lead* of the ordinary width, and which is now considered as being *very narrow*; and figure 5. its profile. It appears, on comparing the sections of these leads, that the ancient lead (No. 1.) contains as much material as the modern lead, and is therefore not weaker than it; though it presents a narrower surface to the eye. The German lead is considerably stronger than the modern. Theophilus [Post Appendix A, chap. 25.] describes the making of the leads, which were then simply cast in a mould. Some leads of the fifteenth century, which I have examined, appear as if they had been first cast, and afterwards planed or cut to shape. The modern leads are cast roughly, and compressed between two rollers, to the proper dimension. This process makes them more rigid than the old leads. It is the practice of modern glaziers to surround each *glazing panel* with a "*broad lead*,"—i. e. a lead three-quarters of an inch, or an inch, broad in the leaf,—to strengthen the work.

The German glass from which fig. 3. was taken, and which is now in the west window of St. Giles's church, Camberwell, had each of its glazing panels surrounded by two leads of the same dimensions as the above specimen, soldered together at intervals, the little pipe formed by their grooves being filled with a small twig with the bark on. This lead-work was remarkably substantial, and as perfect as if it had only just been executed. I never met with any old English glazing panels which were either thus defended with a double lead, or with a lead of greater substance than that commonly employed to hold the glass together.

The difficulty of introducing colour into glass paintings, without the use of lead-work, seems to have been always considered as a disadvantage, and no doubt sensibly affected the designs of the middle ages.

Theophilus mentions a mode of introducing different colours into a picture without leads, by laying small pieces of coloured glass upon a larger piece, and causing them to adhere to it in the firing, [see post Appendix A, chap. 28,] but this seems to have been confined to representations of jewellery, &c. I have met with an instance of this practice, as late as the beginning of the fifteenth century, in a fragment of a small mitre, the jewelled bands of which had been originally adorned with bits of coloured glass, in imitation of precious stones. One coloured piece only adhered to the white glass, the others had all dropped off, leaving corresponding rough spots on the glass. Rough spots found in

similar situations may often serve to indicate this practice in other examples where no pieces of coloured glass remain.

The inconvenience of being obliged to lead in coloured glass, was most sensibly felt in the execution of coats of arms. It was to a considerable extent obviated by the method, introduced towards the end of the fifteenth century, of abrading or grinding away the coloured surface of ruby glass, so as to leave at pleasure metal charges on coloured fields, or coloured charges on metal fields; and by the discovery of other kinds of coated glass, which were used in a similar manner. The abrasion of the coloured surface of coated glass, must necessarily have been a tedious and expensive process, not to be resorted to except in cases of absolute necessity, and of additional remuneration. Hence misrepresentations of heraldry occur nearly as frequently in late as in early works; the complexity of the bearings in late shields counterbalancing the facilities of execution afforded by the then recent discoveries. I subjoin, by way of illustration, a few instances of false heraldry in glass paintings out of a vast multitude which I have noticed. It will be observed that in every case the seeming mistake may be readily accounted for on glass painting principles.

In the east window of Fawkham church, Kent, the Royal arms of England, temp. Edw. II., consists simply of a piece of pot-metal yellow glass in the form of a heater shield, on which the three lions are painted in outline. In Lullingstone church, Kent, the arms of Brockhull—Gules, a cross argent, between twelve cross croselets fitchées or—are represented on a heater shield of a single piece of white glass, temp. Edw. III., the field being white, and the cross croselets stained yellow. In North Cray church, Kent, the bearing of the Bowes family—Argent, three bows in pale gules—is represented on a piece of white glass, of the sixteenth century, the bows being stained yellow. And at Wilton House, Wilts, the whole of the arms of Philip of Spain, the husband of Queen Mary, is, with the exception of the bearing of Austria, executed in white, yellow, and black. This last example is the more striking on account of the care which has been taken to represent a cotemporary coat of the Herberts—hardly less complicated than that of King Philip—in its proper colours, by means of coated glass etched out in the usual manner.

CHAPTER I.

INTRODUCTION TO THE STYLES.

It has already been stated, that a principal object of the present work is to attempt a classification of the different styles of glass painting, which have successively prevailed in this country. Such a classification must necessarily be in some measure arbitrary, as well in the number of styles under which the varieties are arranged, as in the limits which are assigned to each. With regard to these points I have endeavoured to consult simplicity and convenience, by avoiding too numerous divisions, and by adopting for the earlier periods an arrangement corresponding, as nearly as possible, with the generally received classification of English Gothic Architecture. To the styles prevalent in these periods it has seemed most convenient to apply the same terms as are commonly used to designate the contemporary styles of architecture, viz. the *Early English*, the *Decorated*, and the *Perpendicular*, as these terms, from the currency which they have acquired, will at once suggest well-defined periods of time. The style which succeeds them has a very marked character, and may with great propriety be termed the *Cinque Cento*. To the remaining division of the subject it is, from the want of a peculiar feature of universal occurrence, difficult to apply an appropriate term; but, in the hope that this style will hereafter be regarded merely as a link between the ancient styles and an improved modern one, I have termed it the *Intermediate*.

Thus then the varieties of glass painting have been arranged under five styles, or classes; viz.

The Early English, which extends from the date of the earliest specimens extant, to the year 1280.

The Decorated, which prevailed from 1280 to 1380.

The Perpendicular, from 1380 to 1530.

The Cinque Cento, from 1500 to 1550.

And the Intermediate, comprehending the period which has elapsed from the end of the Cinque Cento style down to the present day.

These styles are treated of with much minuteness, and according to a uniform method. The leading characteristics of the style are first described in general terms, and they are afterwards examined in detail, under separate heads. This mode of treating the subject may have led to occasional repetitions, and may appear tedious to some readers, but it is hoped that the examination of details, besides being necessary to a full understanding of the subject, will prove serviceable to the student who is not content with a simple perusal of the work, but may find occasion to consult it from time to time, for information on particular points.

SECTION 1.

THE EARLY ENGLISH STYLE.

UNDER this head I propose to class the glass paintings prior to the year 1280. The present style will therefore embrace some glass paintings coeval with the *later* specimens of Norman architecture. But on account of the paucity of these venerable relics, the small portion of time over which they extend, and the general resemblance they bear to other glass paintings, clearly within the Early English architectural period, it appears more convenient thus to classify them, than to attempt to form them by themselves into a separate and distinct style.

The oldest examples to which a date seems capable of

being assigned with any degree of certainty, appear to be those remains in the abbey church of St. Denys in France, which are supposed, on good grounds, to have been the work of Abbot Suger, in the middle of the twelfth century. I very much doubt whether any English glass paintings exist of an earlier date than this. The earliest that I have hitherto met with are, I believe, of a somewhat subsequent period.

Early English painted windows are in general almost entirely composed either of coloured glass, or of white glass. The coloured windows are nearly exclusively appropriated to pictures, and the white ones to patterns. Both are usually surrounded with a wide coloured border, returning along the bottom of the window.

The coloured windows are perfect mosaics, of the most vivid, intense, and gem-like tints. Their tone of colouring is deep, harmonious, and rich, but not gay : they exclude more light than perhaps any other painted windows, and their general effect is extremely solemn and impressive. Some windows of this description, from the smallness and number of the pieces of glass they contain, present at a distance only a rich and confused assemblage of various colours ; their design being as little defined as that of a Turkey carpet, to which they have often been likened.

The white windows have a remarkably brilliant and silvery, though cold appearance, owing to the greenish blue tint of the glass. Their effect is grand and imposing, especially when the window is of considerable magnitude.

There are three principal classes of *coloured* windows in this style, which for the sake of convenient reference may be termed, *Medallion windows*, *Figure and canopy windows*, and *Jesse windows*.

The first named class of these windows is undoubtedly the most interesting. They are principally filled with

medallions, or panels, containing coloured pictures, arranged in a symmetrical manner, and embedded in a mosaic ornamental ground formed of rich colours^a. The pictures are usually related to each other, and represent successive incidents in a history, or legend, depicted in the windows: sometimes they are so selected that the result of them, when taken in connexion with each other, is to express, at least symbolically, some theological proposition or doctrine^b. In the lowest panels are sometimes represented the donors of the window individually, or members of the guilds or fraternities to which they belonged, engaged in their respective trades^c. The pictures are necessarily of small size; and a great many of them often enter into the composition of a single window. In the best examples, attempts were made to obviate, as far as possible, the confusion arising from a multitude of small parts, and to produce distinctness, by judiciously employing the darker colours principally in the

^a Coloured representations of French medallion windows, of the twelfth and thirteenth centuries, are given in the elaborate work of M. Lasteyrie, "*Histoire de la Peinture sur verre*," plates I, III, V, XXIV, XXXIII; and of similar windows of the thirteenth century, (see Lasteyrie, "*Hist. de la Peinture sur verre*," p. 92, et seq.,) in the magnificent work on Bourges cathedral, by Pères Martin and Cahier, entitled, "*Monographie de la Cathédrale de Bourges*," plates I. to XVI. inclusive. There is also an engraving in outline of a medallion window at Rouen cathedral, of the thirteenth century, in the "*Essai Historique et descriptif sur la Peinture sur verre*," par E. H. Langlois, Rouen, 1832; likewise of a similar window of the thirteenth century, entitled "*Vitrail de la Passion*," in the church of St. Germain, Auxerrois, in the "*Annales Archéologiques*," by M. Didron, vol. i. p. 16, and of another of the same date and character, in the church of Notre Dame de la Couture, at Mans, in vol. iii. liv. 4. of the last-mentioned publication.

This mode of arranging subjects in

panels was not confined to glass paintings; it was often resorted to in the sculpture of the twelfth and thirteenth centuries. The wooden folding doors at the north end of the transept of the church of St. Mary of the Capitol, Cologne, which are figured in Boisserée's "*Monuments d'Architecture du Rhin inférieur*," plate IX, are decorated with a series of rectangular panels, each containing a scriptural subject represented in relief; and other instances might be cited. It is possible that these panelled arrangements were suggested by some of the bas reliefs of classical antiquity.

^b This is particularly insisted upon by the learned authors of the "*Monographie de la Cathédrale de Bourges*," and in many cases admits of easy proof.

^c Representations of the latter kind are by the French antiquarians termed the "*signatures*" of the windows. See the plates of the "*Monographie de la Cathédrale de Bourges*," and especially "*usages civiles A.*" See also Langlois' *Essai*, cited above, plate I, in which engravings of these subjects are given.

grounds, and the lighter colours in the objects represented in the pictures—for the edgings of the various panels and outer border of the window—and in the foliage, and other ornaments. These efforts to produce distinctness were materially assisted by the texture of the glass, and the opacity of the iron framework for the support of the glass, which in these windows is usually moulded to the shape of the principal panels. The ancient artists however, seem to have been sensible that such windows were most calculated for near inspection, and therefore commonly placed them in the lower windows of a building. They also made the pictures larger, and fewer in number, when they designed a medallion window, as was sometimes the case, for a clearstory light.

Medallion windows, which certainly seem most fitted to occupy wide single lights, continued to be employed in this country from the earliest period at which painted glass is found, until the introduction into architecture of windows either composed of two or more *narrow* lancets, or divided into several lights by *mullions*. After this time white pattern windows seem generally to have superseded the medallion windows. In France, the medallion arrangement was adhered to long after the single lancet had been exchanged for the mullioned window: the lower lights, as well as the geometrical tracery in the heads of the latter windows, being filled with a series of panels, or pictures, arranged so as best to accord with the architectural divisions of the window^d.

The arrangement of a circular, or *wheel window*, when the space is free from mullions, does not materially differ from that of a medallion window. The panels, and the subjects they contain, are, however, in general larger in size in pro-

^d See instances,—Lasteyrie, "Hist. de la Peinture sur verre," plate XXIX; "Monographie de la Cathédrale de Bourges," plate, Etude XIII.

portion to the distance at which the window is placed from the eye^c.

When the circle is divided by mullions, the centre, or eye of the window, is usually filled with a picture in colours, and one or two small circular panels, containing a head, or other picture in colours, are introduced into each of the radiating lights, and embedded in a coloured or white pattern. Sometimes the radiating lights are simply filled with a mere pattern^f. In France, after the introduction of wheels into the tracery of windows, a very starlike appearance was sometimes produced, by carrying into the radiating lights of the wheel, straight branches of foliage of a light tint, diverging from the centre of the window and surrounded with a deep coloured ground^g.

Figure and canopy windows, strictly speaking, consist of one large figure under a low crowned canopy, together occupying the whole of the window within the border; or of two or more such figures and canopies placed one above the other. The canopy, like those on the tombs and seals of the twelfth and thirteenth centuries, is rude and simple, and bears but a small proportion to the figure it covers. The different members of the canopy are in general variously coloured. The figure is usually executed in rich colours, and put on a coloured ground^h. Under the present division of the subject, may, however, though with less propriety, be included those windows which are composed of merely a

^c See a rude woodcut of the remains of the glass in the circular window at the north end of the east transept of Canterbury cathedral, in Gostling's "Walk in and about the City of Canterbury." Canterbury, 1825. p. 327.

^f See engravings in outline of the glass in two early wheel windows, "Monographie de la Cathédrale de Bourges," Etude XX, figs. A and C; and coloured representations of two later examples in Lasteyrie's "Histoire de la Peinture sur

verre," plates XXI, XXV.

^g See a coloured representation of this arrangement, Lasteyrie's "Histoire de la Peinture sur verre," plate X. In another plate, No. XX, the whole of the wheel, except the eye, is filled with a representation of the Day of Judgment.

^h See plate 3, which represents the mutilated remains of a French figure and canopy window of the thirteenth century.

single figure, on a coloured or white ground, without any canopy; and those windows whose design principally consists of one large coloured panel, containing a single figure, and surrounded with a coloured ground, or sometimes smaller accessory figures¹.

Windows of the above description, on account of the size and fewness of their parts, possess a greater breadth of colour, and are more distinct, when viewed from a distance, than medallion windows; for which reason, I apprehend, they were generally assigned to the clearstory of a building, the extremities of an aisle, &c. They appear to have been employed at all periods of the style; and in France, at least, in mullioned windows, as well as in single lancet lights. When the lower lights of a mullioned window are very long, small pictures are sometimes inserted above, below, or between the figures.

Jesse windows consist of a representation of the tree of Jesse, or illuminated chart of the genealogy of Christ. The main stem, which is in general almost entirely hidden by the figures, shoots upwards, and branches spring from it at intervals, forming a series of oval panels, one above the other, in which the principal figures are placed. Smaller attendant figures are sometimes introduced outside of the panels, resting their feet upon the lateral scrolls of foliage which sprout from the main branches. In some windows

¹ See a variety of figure and canopy windows, and their variations, in plates XX, XXI, XXII, XXV, XXVI, XXVII, and Etude XVIII. of the "Monographie de la Cathédrale de Bourges." See also plates XI. and XV. of Lasteyrie's "Histoire de la Peinture sur verre." Amongst the varieties of the figure and canopy windows, may be classed the French and German windows which represent gigantic figures of St. Christopher. Of these there is an example in the clearstory on the east side of the south transept of Strasburg cathedral. The figure, which is executed

in colours, and placed on a coloured ground, reaches almost to the top of the window; it is, I think, upwards of thirty feet high. It is said to have been brought from Dreux cathedral. Lasteyrie's "Histoire de la Peinture sur verre," part XL. An exterminating war appears to have been waged in France against these unfortunate St. Christophers, between the years 1768 and 1784; see "Monographie de la Cathédrale de Bourges," p. 142. note 1. M. Lasteyrie, p. 116, remarks that the figure of Christopher is rarely met with in the windows of churches.

the design is somewhat varied, being composed of a series of pictures representing scenes from, or incident to, our Saviour's life, and linked together by the branches of a tree^k.

Jesse windows are in general appropriated to the windows at the extremities of a building, and are usually confined to a single lancet: the number of personages or pictures, included in the design, varying with the length of the light.

The *coloured pattern* windows of this style demand a slight notice. They are by no means of common occurrence, but specimens may be met with at all periods of the style.

The earliest example, perhaps, is the window at St. Denys, figured in the sixth plate of M. Lasteyrie's elaborate work on the History of Glass Painting, and which resembles a Roman tessellated pavement in design. Other early instances partake more of the character of a medallion window, being principally composed of panels, filled with foliated ornaments instead of pictures^l. The later specimens consist of a mixture of white and coloured pattern-work. They occur in the pierced triforiums of various continental buildings, and resemble Decorated glass paintings more than Early English^m. I have not hitherto met with an English example of a genuine coloured Early English pattern window.

The *white windows*, above alluded to, sometimes consist exclusively of patterns, sometimes of an intermixture of

^k See a representation of the remains of a very early Jesse in York minster, Browne's "History of the edifice of the Metropolitan Church of St. Peter, York." Lond. 1845, plate CXXIII. See also an engraving of another very curious example, of the same subject, in the east window of St. Cunibert's church, Cologne, Boisseree's "Monuments d' Architecture du

Rhin inférieur." Munich and Stuttgart, 1842, plate LXXIII.

^l See plates III. and V. of Lasteyrie's "Histoire de la Peinture sur verre."

^m See plate XXII. of Lasteyrie's "Histoire de la Peinture sur verre," in which several instances of this kind of window are given.

heraldry, or coloured pictures in panels, with white patterns. They appear to have been of rather a more late introduction than *coloured windows*. The earliest specimen that I have as yet met with in England, is perhaps a little older than the middle of the thirteenth century.

Early English white patterns are composed of ornamented quarries^a, or of a series of panels, furnished with narrow borders, and filled with foliated scroll-work in outline, the panels themselves being embedded either in ornamented quarries, or in foliage, disposed in scrolls, or other forms, and drawn in outline on white glass^b. Little pieces of coloured glass are often introduced by way of enrichment amongst the quarries, or into the borders, and middles of the panels, &c. The earlier white pattern windows were used in single lancet lights. It is seldom that any other subject is introduced into them than a small shield of arms, and even this is by no means of frequent occurrence. Early English windows, consisting of mere patterns, may be met with at the latest period of the style; but as the style advanced, and lancet windows became longer and narrower, and especially after the introduction of mullioned windows, the white patterns were often enriched by the insertion into them, at regular intervals, of coloured panels, containing pictures. We may also remark, in Early English mullioned windows, or even late triplets of lancets, the first indication of a practice which extensively prevailed in the succeeding style, that of carrying a belt of low-topped canopies, with figures under them, like a horizontal stripe of colour, right across the lower lights, the remainder of which is filled with a white pattern.

^a See an example, plate 1, taken from one of the east windows of Westwell church, Kent. Its date is about the middle of the thirteenth century.

^b See plates 5 and 6, both of which are taken from specimens of the close of the thirteenth century. See also a variety of

patterns from Salisbury cathedral, "Monographie de la Cathédrale de Bourges," Grisailles E. A compartment of one of each of the five sisters at York minster, is represented in Browne's history of that edifice (cited above) plates LXI, LXIII, LXV, LXVII, and LXIX.

The head of an Early English mullioned window seldom exhibits a greater amount of colour than do its lower lights. Circular panels, containing coloured subjects, or coats of arms, sometimes occupy the centres of the tracery circles, their foils, when the circles are cuspidated, being filled with white glass bearing an outline pattern. In French windows, however, the head of the window is often richly coloured, while the lower lights are nearly white^p.

One may perceive, I think, to a certain extent, in the general preference for coloured or white windows in a building, the prevalent taste of the time, not only as regards fondness for colour, but for gloomy or light interiors. Thus in the twelfth, and early part of the thirteenth century, when the window openings, however spacious, were at long intervals apart, the glass paintings used throughout the whole building were generally dark with colour. Afterwards, in proportion as the windows became more numerous, and were placed closer together, the richer glass paintings at first were confined to the further extremities of the edifice, as for instance, the east and west windows of the nave, or even to the central lancet of an eastern or western triplet; the rest of the windows, both of the aisles and clearstory, being filled with white patterns, and at length they were dispensed with altogether. The effect of these arrangements, coupled with the greatly increased number of apertures, was materially to promote the admission of light into the building.

The most interesting series of English *picture* windows of this period that I have met with, is in Canterbury cathedral. Remains of painted glass, of an earlier character than this glass, are scattered about the country, but they are chiefly valuable as specimens of detail. Of the Canterbury glass, however, notwithstanding the severe

^p See an example, "Monographie de la Cathédrale de Bourges," plate, Grisailles F.

injuries it has sustained at different times, by actual violence, as well as neglect, and by being displaced in the course of alterations and removals, enough still remains, not only to afford abundant examples of detail, but also, with the aid of the descriptions left of it by Sumner^a and Gostling^r, pretty clearly to indicate the general nature and arrangement of the windows, as they originally existed in the choir of the building^s.

It would seem on the whole, that the lower and upper lights of the aisles, as well as those in the lower clearstory, throughout that portion of Canterbury cathedral which lies eastward of the central tower, were occupied with medallion windows^t; that the lights in the upper clearstory were filled with two large figures apiece, one above the other^u; and that the design of the two circular windows at the ends of the east transept, partook of the nature of medallion windows, the subjects contained in them however being more simple, and of larger size, than those in the lower medallion windows. This arrangement coincides generally with that of the windows of Bourges, and other French cathedrals; and must, when the glass was perfect, have produced an equally gloomy and solemn effect.

Some magnificent white pattern windows, coeval with the building, still exist in Salisbury cathedral^x. And if, as I

^a Sumner's "Antiquities of Canterbury." Lond. 1640, p. 385.

^r Gostling's "Walk in and about the City of Canterbury." Canterbury, 1777, p. 329. (2nd ed.)

^s The former choir of Canterbury cathedral was destroyed by fire in 1174. The first celebration of divine service took place in the present choir in 1180, the monks being separated by a wooden partition, "having three glass windows in it," from the unfinished part of the edifice. In 1184 the present choir was completed. The translation of Becket's body to the shrine in Trinity chapel took place in 1220. Willis's "Architectural History of Canterbury Cathedral," Lond. 1845.

No documents have hitherto been found by which the date of the present glass can be determined. It is I think of the first half of the thirteenth century.

^t Sumner's description of some of these windows is transcribed in the appendix (C.)

^u It is clear from Gostling's description, that the windows in the clearstory represented the ancestors of Christ, enumerated in St. Matthew's and St. Luke's Gospels.

^x Viz. one at either end of both the aisles of the nave, and three at the south end of the east transept. These windows are, however, in a mutilated state. Modern copies of some other glass have been

conceive, nearly all the windows of that edifice (with the exception at least of the three west windows of the nave, which were always richly coloured^a), were similarly ornamented, the interior of the building must originally have been almost as light as it now is, and consequently must have presented a totally different aspect from the choir of Canterbury^a. Other fine and very perfect examples of white pattern windows, are afforded by the five sisters at York^a. These are rather later than the Salisbury windows, and there is a great diminution of colour in their borders compared with those at Salisbury. Their general effect is however exceedingly grand and striking.

An early example, but on a comparatively small scale, of a richly coloured window placed between two white pattern windows, is at Westwell church, Kent. The east end of this edifice is lighted by three independent lancets, the centre one of which contains the remains of a remarkably fine Jesse^b. In one of the others are the remains

inserted in some of the other windows of the cathedral. Salisbury cathedral was commenced in 1220, and completed and dedicated in 1258: the first celebration of divine service in the new building took place in 1225; and in 1226, William Longspee, earl of Sarum, was buried there; and the bodies of St. Osmond, Bp. Roger, and Bp. Joceline, translated thither from Old Sarum. See Britton's "History and Antiquities of the Cathedral Church of Salisbury." Lond. 1836.

^a Some of the glass in these windows is said to have been brought from Normandy some years ago. There is, however, a good deal of English glass in them, much mixed. Amongst other subjects there are, if I mistake not, the remains of a fine Early English Jesse.

^b The windows of the chapter-house of Salisbury appear to have been also filled with white patterns. Some of the glass is represented in one of the plates of Britton's History of the Cathedral (cited above.)

It is a curious fact, coupled with the restricted use of colour in the windows, that the roofs of both the nave and chapter-

house of Salisbury cathedral, are adorned with slight paintings representing foliaged ornaments, and executed principally with a sort of brown colour. The paintings on the roof of the nave are unfortunately in great measure obscured by Mr. Wyatt's yellow wash, with which they are covered.

^a A general view of these windows is given in plate XXVIII. of Britton's "History of York Cathedral." The five small windows above the sisters are filled with modern glass.

^b In Hasted's "History of Kent," published in 1797, vol. vii. p. 426, (second edition,) it is stated that this window consisted of four ovals, each containing a figure sitting, crowned, and holding a sceptre. The two lower ovals however were blown in by the wind and destroyed some years ago. The two upper ovals would probably ere this have shared the same fate, had they not been carefully re-leaded a few years since by Mr. Willement, under the directions of William Twopeny, Esq., of the Temple, the old lead-work being then quite decayed. The figure of the Virgin Mary occupies the

of a beautiful quarry pattern with a rich border, a sketch of which is given in plate 1. The third lancet, which in all probability was once ornamented like the last, is now filled with modern white glass.

A fine instance of a composition consisting of an intermixture of coloured panels with white patterns, is afforded by the five lancet windows at the east end of Chetwode church, Bucks^c. Specimens, in a more or less perfect state, of *small* white pattern windows, with or without panels inserted in them, are very common towards the close of the style.

The following summary of the most prominent points connected with the details of this style, may prove a useful introduction to the more minute, and necessarily dry and tedious investigation of these matters, which completes the present section.

The foliated ornaments are very conventional and unnatural, closely resembling the forms used in Norman and Early English sculpture.

Scrolls of foliage are not formed out of one continuous tendril, but of a series of short stalks, or leaves; the scroll therefore, whether executed in white, or coloured glass, appears as if it were divided into a number of short lengths of foliage; this effect is increased when the scroll is coloured, as in that case each length of foliage is frequently of a different colour from the adjoining lengths^d. Foliaged

lowest oval, and that of the Father Almighty the upper; above which is a representation of the Holy Ghost.

^c A general view of these windows is given in Lysons' "Buckinghamshire," p. 540, and a more detailed drawing of some of the glass at p. 488. The letter-press should be consulted along with these plates, since Mr. Lysons admits in it that he has taken some liberties with the design in the last plate.

^d See for example the white scroll-works in plate 6, and the white pattern

from Salisbury cathedral, in Shaw's "Encyclopædia of Ornament." See also a coloured scroll-work from Canterbury cathedral, in the last publication: and other coloured scroll-works in some of the plates of the "Monographie de la Cathédrale de Bourges."

The general resemblance borne by the Early English scroll-works to the Antique, will at once appear by comparing a few specimens of the former with the plates of any work treating on classical ornament.

and other patterns, on white glass, are usually boldly outlined, and rendered more distinct by covering the surrounding ground with a cross-hatching of thin dark lines. Early English white pattern windows, in England generally consist of panelled arrangements, the foliated scroll works being confined within the panels, and seldom extending from one panel into another; when this is the case, it indicates lateness of style.

The figures are tall, stiff, and disproportioned, like those in the illuminations and sculpture of this period. In the earlier examples, the draperies appear almost to adhere to the limbs, admitting of an exaggerated development of the joints. The earlier heads remind us of the Byzantine school, the later are often well conceived, and possess a certain character of the antique; all are rudely executed. The features, and folds of the drapery, are very strongly outlined*. Pink coloured glass is generally employed in the naked parts of the figures.

The glass of this period usually is, and always *appears* to be, very thick and substantial. The white is generally of a bluish green tint. The ruby is very streaky, and uneven in depth. The yellow is a *pot-metal*, cold and greenish, and generally light. The blue is of a pure sapphire tint, one sort being very deep, the other quite light. Blue and red are the predominating colours in medallion windows, being extensively employed in grounds.

I now proceed to a minute examination of the details of Early English glass paintings, under the following separate heads.

1. TEXTURE AND COLOUR OF THE GLASS.

The glass of this period, though sufficiently transparent, when unobscured by decomposition, to enable objects to

* See plates 2, 3, 4, 6, 28, 32, 34, 35, and 36.

be easily seen through it, is yet less homogeneous, and consequently not so perfectly transparent as modern glass. This peculiarity in the texture of the material imparts to the lightest coloured pot-metals, and even to the white glass itself, a remarkable degree of richness and strength, admirably adapted to harmonize with the stiff and hard execution of the paintings. It also occasions the colours to preserve their distinctive tints, when wrought in minute pieces into mosaics.

The blue glass of this period in general possesses a peculiar tint, like that of a sapphire. There are two kinds of it, the one very deep, the other light. The darker kind is usually employed in the grounds of panels or patterns, the lighter more commonly in draperies and ornaments, than in grounds.

The ruby is exceedingly rich, and generally of a crimson hue. It is very irregularly coloured, some parts, even of a very small piece of glass, frequently being of so deep a red as to appear black at a little distance, whilst others are almost white; the colour is generally in streaks, and appears as if it had been laid on with a brush. Some very curious particulars relating to the ruby of this, and the Decorated period, have already been mentioned in one of the notes to the Introduction; to which the reader is referred for further information on the subject.

The white glass throughout this style varies much in tint, and in its power of resisting the corroding action of the atmosphere: two kinds of glass are not unfrequently met with in the same painting. Some of the earliest, when examined closely, is almost of a cobalt hue, though when contrasted with other colours, and seen at a distance, it appears white: some is indeed almost quite white. The sort most commonly met with, especially in the latter part of this period, is of a rich sea-green tint; some

specimens are much bluer than others. It varies much in thickness, and consequently in depth of colour. This occasions varieties of tint in a window wholly composed of white glass of the same manufacture, especially when it is much corroded or weather-stained: for the brown film which attaches itself to all the glass without distinction, is more apparent in the thin pieces, than in the thick, being to a certain extent lost in the deeper local tint of the latter. The yellow glass, which is a pot-metal, is in general light, and of a cold tone: but sometimes it is very deep, rich, and golden: it never partakes of an orange hue.

Green varies from a cold, though very rarely raw, tint, to a fine rich olive. Many tints of it often occur in the same glass painting.

Purples and pinks may be met with of almost every shade of colour and intensity. A curious fact in reference to the texture of a piece of Early English purple glass which I have examined, has already been mentioned in one of the notes to the Introduction.

A kind of yellowish pink glass, resembling salmon colour, is extensively employed as a flesh colour in Early English glass paintings. That used for the figures of men is in general deeper, and redder, than that used for the figures of women and children. In some specimens, partaking more of a pink hue, the colour is streaky, as in ruby glass.

2. MODE OF EXECUTION.

The glass paintings of this period, whether consisting of pictures or patterns, are full of strong dark lines of enamel brown, which are used not only to delineate the forms of the objects represented, but also for the purpose of heightening, if not wholly representing, the deeper shadows. These lines are in general, I think, thickest in works executed about the middle of the thirteenth century, but at all times their

breadth is remarkable, as is also their fulness of colour, to which their blackness is attributable. In large figures, and their canopies, &c. the lines are, in their widest parts, often twice or thrice the width of the leads. When used to represent shadows, they taper off to a fine point. They always seem to have been drawn with a bold firm hand, and a stiff and elastic pencil full of colour. These lines, by breaking and cutting up the work, have a tendency to impart a mosaic appearance to it, even when the largest pieces of glass enter into its composition. They always however render the drawing distinct and effective, notwithstanding the strong colouring of the glass, which is naturally calculated to kill and obscure the painting.

Outline patterns on glass are frequently rendered more distinct, by cross-hatching the ground around them with thin black lines. These, although often as fine as a hair, are as black and full of colour as the thick lines before mentioned^g. When seen at a distance, the cross-hatching is apt to resemble a shaded ground. The cross-hatching is in general much coarser in the upper windows of a building, than in the lower windows; it is sometimes omitted in the upper windows.

Smear shadows are extensively employed in the draperies of the figures, in the architectural parts of the composition, and in the foliage and other ornaments, sometimes alone, sometimes in addition to the strong shading lines above described. The shadows always appear to have been put in broadly, and at once, with a thin wash of brown paint, and when requisite, are softened off towards the edges, by a few streaky strokes of the brush^h. I have seldom noticed

^g See plates 4, 28, 29, 30, 31, 33, and 35.

^h See plates 29, 30, 31, 33, 1, 5, and 6.

ⁱ See plates 34, 35, 36. See also an excellent representation of smear shading, "Monographie de la Cathédrale de

Bourges," Etude III. I should caution the student that in many of the full-sized plates of the last-mentioned work, the shading is very incorrectly given: this is particularly the case with Etude X, in which *lights* are introduced, which can

any attempt at heightening a shadow by a second application of colour on the same side of the glass, but a second coat, corresponding with the deeper parts of the shadow, is often to be found on the opposite side of the glass. In general these washes are too faint to be distinguished at a distance. A thicker coat of brown was also used *as a colour*, in certain cases. The hair and beards of the figures are usually covered with it¹, as are occasionally horses, and other animals. Diaper patterns are not uncommon during this period, they are scraped out of a *smear* ground.

3. FIGURES.

The figures of this period are in general disproportionately tall and slender; and their lower limbs are far too long for the body and arms. The draperies are full of small folds, like the antique, but are stiff, scanty, and close. In the earlier specimens they are wrapped so tightly about the body, as to appear as if they adhered to it, the joints of the limbs being often shewn through the garments in an unnatural and extravagant manner. The naked figures are attenuated and meager, and the details badly and inartificially drawn. The hands and feet more nearly resemble combs or rakes, than the extremities of the human form. The joints and knuckles are often marked by a couple of thin straight lines drawn right across the hand or foot². More skill is however shewn in the treatment of the heads, which in their general contour usually bear a certain resemblance to the antique. The faces are in general oval,

have no existence in the glass itself. Even Etude III. is not quite free from this defect.

¹ See plates 34, 35, 36.

² Plates 2—4, and 6, may suffice to shew the general character of Early English figures, of the middle and latter part of the thirteenth century. A representation

of a figure of the early part of the thirteenth century, or perhaps close of the twelfth, is given in Browne's "History of the Edifice of the Metropolitan Church of St. Peter, York," plate CXXIII. For other examples of thirteenth century figures, see "Monographie de la Cathédrale de Bourges."

and nearly of the classical proportion; the eyes large, the mouth small and well formed, and the chin round.

In the earlier examples, the hair of the head is usually arranged in flat curved plaits, (which have been not inaptly compared to *macaroni*,) or in crisp short well defined locks. The eye is apt to have a spectral or staring expression, from the too great exposure of its pupil. The beard is symmetrically smoothed down on either side of the chin, and the parting of the masses of hair in the middle of the chin, is carefully marked; in small figures, by an oval dot, or stroke. The eye-brows, outline of the nose, and opening of the mouth, are in general strongly delineated.

In the later figures, the hair both of the head and beard becomes more flowing; and a more natural expression is given to the eye, although it still continues full, and is, like the eye-brow and eye-lids, strongly marked¹.

Notwithstanding their rudeness, and defective drawing, the Early English figures in general possess great merit. Simple and unaffected, they are often grandly conceived, though they may be imperfectly executed, through the artist's want of technical skill. A deep and lively feeling often pervades the entire figure, and its countenance, though frequently distorted and exaggerated, is apt to exhibit both expression and character, in a far more striking degree than is usually the case with later works.

The Early English artists were particularly happy in their representations of deified and sainted personages, the

¹ Excellent representations of three heads from Abbot Suger's glass at St. Denys, the full size of the originals, are given in the "Monographie de la Cathédrale de Bourges," Etude VII. The earliest head in the present work is given in plate 34, figure 1. Though in reality only a little anterior to the middle of the thirteenth century, it has the character-

istics of a much earlier example. Fig. 2 in the same plate is of the middle of the thirteenth century, as are those represented in plates 28 and 35. The heads in plate 36 are of the latter half of the thirteenth century, and that in plate 32 is of the close of the Early English period.

peculiarity of the style, as shewn in the formality and severity of the countenances, and the stiff and unnatural character of the draperies, contributing to produce a solemn effect well suited to the subject.

A similar style of drawing to that already noticed, may be observed in the painting of other objects besides the human figure. Some things however, such as animals, trees, water, and clouds, are frequently drawn and coloured in a manner so conventional, and at variance with nature, as to require some ingenuity to discover their meaning.

The head and naked parts of the human figure are, as before mentioned, most commonly composed of flesh-coloured glass^m, which from the combined effect of shading and age usually acquires a rich brown tint. Sometimes however only white glass is used, instead of flesh-coloured.

The heads of the figures are in general boldly and strongly outlined, and smear shaded, as before mentioned. The smear shading is however never carried over the eye-balls. In large figures, though the salmon or flesh colour is used for the rest of the countenance, the eyes are often made of white glass; and the beard and hair are frequently represented on pieces of blue, green, yellow, or other coloured glass, leaded in.

The costume of the figures affords too some criterion of date. Robes, whether lay or ecclesiastical, are generally short, in male figures hardly reaching to the ancles, and in female scarcely more than touching the groundⁿ. They are often ornamented with a jewelled band, sometimes expressed merely by black outlines, sometimes by a strip of glass of a different colour to the robe, passing horizontally right across the middle of the garment, wholly irrespective of folds.

^m This is represented in the coloured plates of this work.

ⁿ See, for instance, plates 2 and 6.

In the ecclesiastical dress, the other chief distinguishing features are the triangular shape and flatness of the mitre, and the simplicity of the crozier, which last is seldom more than a mere crook^o.

The female dress usually consists of a close garment with tight sleeves, and a loose robe or cope, and shoes. The head is sometimes bare, but more commonly draped.

The male dress, usually appropriated to prophets and dignified persons, likewise consists of a close garment, confined at the waist and furnished sometimes with tight, sometimes with loose sleeves, a robe or cope, and long hose, to which is often added a cap, greatly resembling the Phrygian bonnet^p. The costume of ordinary persons is generally a short tunic confined at the waist, and reaching nearly to the knees, and sometimes a short cloak; when this is used, the legs of the figure are generally represented encased in hose, or a loose sort of stocking setting in folds about the leg, and with or without shoes: otherwise the legs are left bare.

Military figures are usually armed with the hauberk and coiffe de mailles, and sometimes, in the later examples especially, with the chausses of mail. The sword has a large round pommel, and pointed tapering blade, very broad towards the hilt, and having apparently a channel or groove down the middle.

The malicious expression of the countenance of an executioner, often reminds one of an antique mask.

4. FOLIAGE, &c.

By far the greater part of Early English decorative work is composed of foliage. The form of the leaves is, as before

^o See plate 2.

^p This is particularly shewn in the representations of Suger's glass at St.

Denys, "Monographie de la Cathédrale de Bourges," Etudes VII. and VI.

mentioned, very conventional and unnatural. The earlier foliage partakes much of the character of the antique, and closely resembles the imitations of the ancient honeysuckle met with in Norman carvings⁹. The later foliage is more like that exhibited



A Border, from York Minster.

in the architectural details of Early English work, from which it appears to be taken: the bulbous projecting lobes of the leaf are often attempted to be represented in the glass by means of a fine outline^r. It is frequently formed into beautiful concentric spiral scrolls, broken into short lengths by the overlapping of the leaves. When the scroll is executed in coloured glass, each length is usually of a different colour to the adjoining lengths. Bunches of grapes are frequently introduced amongst the foliage^s.

In all cases the form of the leaf is delineated with great precision and force. The trefoil and cinquefoil are the most common terminations. The leaves are occasionally shaded with smear shading, but their curves and overlappings are most commonly expressed by mere lines.

Foliage is likewise employed in a variety of ways to ornament the straight or curved narrow fillets of glass, so often used in Early English decorations: but though

⁹ Cut 4 is from a border in one of the clearstory windows of York minster. A coloured representation of the same border, but on a much larger scale, is given in an instructive series of examples, arranged according to their order in point of age, in Browne's "History of the Metropolitan Church of St. Peter, York," plate CXXVIII. It appears coeval with the curious Jesse figured in plate CXXIII. of the last-mentioned work; and is perhaps of the close of the twelfth, or more

probably of the early part of the thirteenth century. Some foliage of the first half of the thirteenth century is represented in Boissérée's "Monuments d'Architecture du Rhin inférieur," plate LXXII. Another example is given in plate 27, fig. 1, of the present work.

^r See plates 5, 6, 30, and 33.

^s For examples, I must refer to the engravings already mentioned in the notes to the present style.

necessarily of different form, it is of the same character as that already described[†].

A very common ornament for a fillet, is a row of beads the width of the fillet, on a black ground[‡]. And another as common, appears to be taken from the Ionic ovolo fillet. A representation of the last is given in the margin, and having to refer to it again, I shall by way of distinction call

CUT 5.



The Scallop Ornament. Stanton Harcourt Church, Oxfordshire.

it the *scallop ornament*. Various combinations of this ornament are to be met with in Early English glass paintings[‡].

5. BORDERS.

The ordinary border almost invariably has an edging on either side, of one or more narrow strips of white or coloured glass; or a row of beads, in lieu of one of the strips; and the interior space is usually filled with a pattern composed of various combinations of foliage, or of foliage and fillets; and occasionally, of a series of small medallions formed of foliage, and each containing a figure, like the medallion moulding in architecture. The pattern is usually variegated, and the general ground of the border deep blue or red. Sometimes however, while the edging of the border retains its colour, the interior space is chiefly filled with

[†] See plate 29, fig. 2.

[‡] See plate 27, fig. 2.

[‡] The rose in plate 31, and those in

the border of the light in plate 6, are but combinations of the scallop ornament.

white glass, with foliage or some other kind of ornament painted on it.

Such borders, when the window is wide, and consists of one light only, are generally carried quite round the opening; and the little square which is often formed at either extremity of the bottom of the window, by the intersection of the edgings to the border, is commonly filled with a distinct pattern, or ornament. The width of the border is generally one-sixth of the entire width of the window. In very large windows it is about one-eighth or one-ninth, varying however from one-fourth to one-thirteenth, or thereabouts.

Sometimes however, whatever may be the date of the window, a few plain strips of coloured or white glass, or a row of beads, supplies the place of a more elaborate border. In the latest examples, borders are to be met with formed of quatrefoils, fleurs-de-lis, or other figures placed at regular distances apart, on a coloured ground. Their breadth sometimes does not exceed one-nineteenth of the whole width of the window*.

6. PATTERNS.

The pattern on an Early English quarry, whether formed of white or coloured glass, in general consists of a flower, or some other figure, or bunch of foliage, of the same conventional character as those which usually occur in Early English ornamental work, and sometimes, in the later examples, of a rudely shaped fleur-de-lis. The quarry is

* See a variety of borders, Browne's "History of the Metropolitan Church of St. Peter, York," plates CXXVIII, LXI, LXIII, LXV, LXVII, LXIX: Lasseyrie, "Histoire de la Peinture sur verre," plates XXXIV, I, III, V, XI, XVI, XXIV, XXIX, &c.: "Monographie de la Cathédrale de Bourges," passim, and especially some on a large

scale, "Mosaïques bordures, &c. D." (Some examples of *medallion borders* are given in Etude VIII.) See also plates 1 and 6 of the present work. I ought perhaps to mention, that fig. 1, plate 27, is part of a border. A coloured border from Canterbury cathedral is given in Shaw's "Encyclopædia of Ornament."

generally *banded* on all, or two only of its sides, in such a manner, as, when several quarries are arranged together, to produce in concert with the lead lines, an interlaced pattern independent of the ornament on the quarry. The pattern is in general very strongly outlined, and the ground of the quarry is commonly covered with a cross-hatching of thin black lines^x.

The coloured patterns which fill the interstices between the panels of a medallion window, are frequently formed of concentric scrolls of foliage, variously coloured, and embedded in a coloured ground. They are sometimes of a geometrical character, consisting of a reticulated work of narrow strips of coloured glass, between which coloured ornamented quarries are inserted, or, of small circular ornamented pieces of glass of one colour placed close together, on a plain or ornamented ground of a different colour. Sometimes the pattern has a loricated appearance, pieces of glass of one colour, edged with pieces of glass of another colour, being so arranged as to resemble the scales of a fish. The variety of these patterns is however too great to be particularly enumerated. Representations of several examples are given in the "*Monographie de la Cathédrale de Bourges*," and in M. Lasteyrie's "*History of Glass Painting*."

White patterns are composed sometimes merely of white quarries, in which case the same ornament is repeated on each quarry in the same light, but more frequently they consist of various panelled arrangements. In these compositions, the whole or greater part of the area of the window within the border, is occupied with panels of various shapes and sizes, each bordered with ornamented fillets and rows of beads, narrow strips of white glass, &c., and containing within itself a distinct foliated pattern

^x See plates 1 and 31.

drawn in outline on white glass. The panels sometimes only touch one another, sometimes they appear as if they were laid upon each other, the larger panels being undermost, and the smaller ones uppermost. When the whole area is not covered with the panels, the interstices between them are filled with white ornamented quarries, or with foliated patterns, drawn in outline on white glass⁷.

It is curious to trace the various modifications of the panelled arrangement until it was merged in the running patterns of the succeeding style. The first indication of the change is in those examples in which the panels are represented without broad and distinct borders, their outlines being marked with a single line of colour only; still later, the coloured lines will be found to have entirely lost their character as borders, the foliated pattern not being confined within their limits, but spreading itself over other parts of the window independently of them⁸.

Another species of pattern, of as early introduction as the panelled arrangement, is formed by dividing the light into lozenge-shaped compartments, by straight lines of colour interwoven with each other; each compartment being filled with a separate foliated pattern on white glass.

It would however be tedious to enumerate all the different varieties of white pattern windows. They all partake more or less of the character of quarry patterns, or of panelled arrangements.

Pictures, or shields of arms, when introduced into a white pattern, sometimes occupy the place of one of the panels, but are more frequently inserted without any refer-

⁷ See plates 1, 5, and 6. See also engravings of some of the Salisbury patterns, "*Monographie de la Cathédrale de Bourges*," *Grisailles E.* A pattern from Salisbury, and another from Southwell church, are engraved in Shaw's "*Encyclopædia of Ornament*."

⁸ Compare the patterns of the five sisters at York, engraved in Browne's "*History of the Metropolitan Church of St. Peter, York*," plates LXI, LXIII, LXV, LXVII, LXIX, with the Salisbury patterns, mentioned in the last note.

ence to the general groundwork of the window, a part of which appears as if it had been cut out to admit them*.

7. PICTURES.

These are in general contained within coloured panels, of various shapes and sizes, having narrow edgings, or borders, composed sometimes merely of ornamented fillets, beads, and narrow strips of plain white and coloured glass, and sometimes, in addition to these matters, of an inscription explanatory of the subject represented in the panel. The panels, when large, are sometimes divided into two, or even five distinct compartments, each of which contains a separate picture, and is separated from the others by a narrow border of its own. The same subject sometimes extends into two adjacent panels, but in general it is confined to one, and with the occasional exception of a protruding foot, or arm, &c., is kept strictly within the limits of the panel.

In medallion windows, each subject forms in general, as before mentioned, a separate incident of one entire story, which is represented by the aggregate of the pictures in the window. The subjects chosen are in general simple in themselves, and are treated in a simple manner. The meaning of the picture is expressed by the action of the group, with but little assistance derived from accessory parts. Few persons only are introduced into the picture, even where the representation of a multitude would be sanctioned by the nature of the subject. I have hardly ever seen a group consisting of more than a dozen figures, and this number is more than twice as great as the usual average.

The character of the individual figures has been already

* See an example, plate 6. Plate 8, may be referred to in illustration of though taken from a Decorated specimen, the text.

described; that of the groups is in general vigorous and energetic.

When the incident requires to be represented within or near a building, a few open arches, roofs, battlements, &c. are usually introduced in the upper part of the panel, and a little water, a tree, or even some grass at the feet of the figures, generally serves to indicate a landscape. Sometimes the figures appear simply to stand upon, or move along, a narrow horizontal line of colour.

The whole picture is represented on a stiff ground of colour, usually of deep blue or red glass. The ground, when composed of the former colour, is occasionally diapered. Sometimes little round pieces of glass, of a different colour, are inserted to break the monotony of the ground.

The lighter colours are in general employed in the figures and other objects, more, as it would seem, with the intention of rendering them distinct and visible from a distance, than with any regard to the tints of nature. Accordingly, red, light blue, purple, white, yellow, and flesh-coloured trees, horses, houses, and cattle, are not unfrequent. And as the more positive tints are bestowed quite as freely on what are intended for the most distant, as on the nearest objects, and as the drawing and arrangement of the design betoken an almost utter disregard of the rules of perspective, the picture appears like the representation of a plane surface, having all its parts equidistant from the eye^b.

^b Some of the earliest pictures in existence, being copied from the venerable remains of Suger's glass at St. Denys, are carefully represented in the "*Mono-graphie de la Cathédrale de la Bourges*," *Études* VI. and VII. Engravings of other specimens of Suger's glass, the originals of which no longer exist, are given in Montfaucon, "*Les Monumens de la Monarchie Française*," tom. i. plates L, LI, LII, LIII, and LIV, but they are unfortunately so incorrectly drawn, as to be of no further use to the

student of painted glass, than as giving the general design of the subjects, which represent incidents from the first crusade. See an interesting commentary on these pieces of glass, in Meyrick's "*Critical Inquiry into Ancient Armour*," vol. i. p. 39 et seq. The objects which are there (p. 44) conjectured to be vessels of the crusaders drawn upon the shore, amounted, I suspect, in the original glass, to nothing more than a conventional representation of the turf or ground beneath the combatants' feet. A

It is the smallness of the figures and ornaments in medallion windows, and the consequent minuteness of the various pieces of glass, that, coupled with the strength of the outlines, gives to these works that highly mosaic appearance, which, as before remarked, has often occasioned them to be likened to a rich Turkey carpet.

The figures in the panels are, however, always rendered the most conspicuous objects in the design, partly by their colouring, but principally by their being drawn much larger than any of the surrounding ornaments. The main divisions of the composition, the panels, and border of the window, are distinctly marked by their respective edgings, even when their ground colours are alike: and the coloured grounds have the effect of giving breadth and harmony to the design, and are useful in counteracting the spotty appearance which would otherwise be occasioned by the variegated tints of the ornaments and figures.

I should here add, that though the ground-colour of the panels, border, and interstices between the panels is often alike, red, or deep blue, it not unfrequently happens that deep blue is the ground colour of the panels, and light blue, or red, that of the rest of the window; or that red is the ground colour of the panels and border, and deep blue that of the rest of the window.

8. CANOPIES.

These are simple in design, and small, compared with the figures they cover. In form they closely resemble those met with on the tombs and seals of this period. A representation of a mutilated specimen is given in the third plate of this work, and others are to be found in the "Mono-

variety of other medallions of later date are engraved in the "*Monographie de la Cathédrale de Bourges*," and in Las-

teyrie's "*Histoire de la Peinture sur verre*." See also the second plate of the present work.

graphie de la Cathédrale de Bourges," and M. Lasteyrie's "History of Glass Painting."

The crown of the canopy is low, and usually consists of a pointed gable, either plain, or crocketed, surmounting a semicircular or trefoiled arch, which just clears the head of the figure, and springs from the capital of a slender shaft on either side of the canopy. The sides of the roofs of two other gables placed at right angles to that in front, are also very commonly represented, and the whole is often surmounted with a number of little domes or turrets, having apparently but little connection with the rest of the design. Sometimes however the arch is dispensed with, the opening being terminated simply by the lines of the gable. Sometimes the gable is omitted, small roofs, turrets, and domes, being heaped together above the arch. The canopy appears like a flat surface; no attempt being made to represent the hollowness of a niche, either by the drawing or shading. The different parts of the canopy are variously coloured, and are frequently shaded with smear shading.

The intervening space between the inside of the arch and side shafts, and the figure, is filled with a plain ground, almost always of colour, and of a different tint to the ground which surrounds the head of the canopy. The canopy generally terminates abruptly at bottom in a horizontal line; upon which the feet of the figure often appear to rest, though the toes sometimes project a little below it. The figure however not unfrequently stands upon a piece of turf or grass. The name of the personage represented is generally written in large characters in a straight line, beneath its feet, or within the arch, level with the shoulders; but sometimes on a flowing scroll held in the hand.

Plate 6. of this work represents what may be considered an early instance of the introduction of a small canopy into

the middle of a pattern window, (a practice which so generally obtained in the succeeding style,) though the ornament which surrounds the figure is perhaps more strictly a trefoil-headed panel than a canopy^c.

The figures in large figure and canopy windows, occupying positions at a considerable distance above the eye, as the windows of a clearstory, are often exaggerated in height, in order to counteract the shortening effect of perspective.

9. HERALDRY.

Heraldic achievements at this period were confined to the shield of arms alone, without any other addition. The shield is invariably of the *heater* form, and the more elongated in proportion to its antiquity. The charges on it are always very simple. Its field is not diapered, but the glass composing it is left quite plain.

10. MECHANICAL CONSTRUCTION.

Coloured Early English windows, owing to the mosaic and broken nature of their colouring, and the employment of a separate piece of glass for each individual colour, always contain a vast quantity of lead-work. In pictures, and coloured ornaments, the leads are scarcely perceptible, being in general thrown into the outlines. In white pattern windows, the leads, when incapable of being brought into the design, are made to take such curves amongst the

^c The subject of plate 6 was copied about three years ago from the glass in the westernmost light of the second triplet of lancets, counting from the east, on the north side of the chancel of Stanton Harcourt church, Oxon. Below the canopy was one panel more of the same white pattern as is represented in the plate, in a nearly perfect state. Fragments of similar patterns were to be seen

in the windows of the first triplet on the north side, and also of the triplet on the south side, opposite the window containing the canopy. The eastern triplet contained no painted glass. I have but little doubt that all the glass in this chancel was originally of the same character, but I cannot say whether there was a double, or only a single tier of canopies crossing the light.

foliated scroll-work, as to cause their presence frequently to pass unnoticed^d.

In all except medallion windows, the glass is formed into rectangular glazing panels, of convenient length and size, which are attached in the usual way to the saddle bars passing horizontally across the light.

In medallion windows, an iron framework, taking the form of the principal medallions, is firmly fixed in the sides of the window, and is in some cases strengthened by a second frame-work, of a similar shape, in like manner inserted in the stone-work, and placed at the distance of a foot or two from the first, with which it is connected by a number of short bars, perpendicular to the plane of each frame-work^e. The glazing panels of the window, which coincide in form with the panels themselves, or their principal divisions, are each often surrounded with a flat iron rim. Straight iron bars attached to this rim afford a support to the glass, which is fastened to them by leaden bands, and the whole panel is secured in its place by bolts passing through the rim to the iron frame-work. Sometimes however the iron rim is dispensed with, in which case the straight iron bars are attached to the frame-work itself, and the glass is bound to them with leaden bands, as before mentioned. The iron of which the fixed framework is made, is often two inches wide, and one inch thick, and sometimes of greater substance. Its broadest surface being in the same plane with the glass, serves by its opacity to render the pictorial divisions of the window more distinct.

The existence of a fixed iron frame-work in an Early English window, is unfortunately too often the only evidence of its having once been a medallion window: but

^d The lead-work in plate 6 deserves attention.

^e Some of these double frame-works still exist at Canterbury cathedral.

the particular arrangement of the design should not be too hastily inferred from the form of the iron-work, which, in general, can be said to indicate only the main divisions of the glass painting[†].

In the wheel windows at the south end of the transept of Strasburg cathedral, and in the west end of the nave of St. Thomas's church in that city, stone tracery, of the Flamboyant period, has been substituted for the original iron frame-work; the ancient medallion glass paintings still being retained in these windows.

11. LETTERS.

The letters used in Early English inscriptions are those known by the name of "Lombardic capitals." Instances are given in plates 2 and 6. An inscription was generally formed by covering a piece of glass with a coat of enamel brown, out of which the letters were afterwards scraped. In inscriptions of large size, the letters are sometimes cut out of white or yellow glass, and leaded into a coloured ground.

SECTION II.

THE DECORATED STYLE.

THIS style appears to have prevailed about one hundred years, viz., from 1280 to 1380.

One of its most distinctive features is the natural form of its foliated ornaments: in these the leaves of the ivy, maple, oak, and other trees and plants may be easily recognised.

These more exact imitations of nature were rather spa-

[†] The form of the iron-work in some of the principal windows of Canterbury cathedral is given in the engravings to Britton's history of that edifice.

ringly used at the commencement of the style, and did not, at least in white patterns, wholly supersede the older and more conventional forms until the end of the reign of Edward I., or a little after.

It is principally in works executed between 1280, and the end of the reign of Edward I., that the test of style afforded by the presence of the naturally formed leaf is most valuable; for they bear in general so close a resemblance in other respects to the *later* Early English glass paintings, that without this mark it would be difficult in many cases satisfactorily to distinguish them from each other^s.

This resemblance principally arises from the early Decorated glass paintings being composed of glass of the same texture as the later Early English glass paintings. Hence the general appearance of early Decorated coloured windows though extremely rich, is by no means gay; and that of white windows is grey and cold. The grandeur of each sort is enhanced by the great width sometimes given to the lower lights of early Decorated windows^a.

Towards the end of the reign of Edward I., and afterwards, many other points of difference between the two styles are observable; amongst which should be particularly noticed the employment of the *yellow stain*, which seems to have been introduced soon after the commencement of the fourteenth century. The colour thus produced is in general easily distinguishable by its lemon-like tint,

^s The glass represented in plate 8, must be classed as early Decorated,—though taken by itself it presents none but Early English features,—for the Decorated foliage occurs in other parts of the same window. The arms are those of Margaret of France, the second queen of Edward I. In plate 10, it will be observed that the Decorated foliage is introduced in the outermost border of the light.

^a The lower lights of the side windows of the chancel of Norbury church, Derbyshire, are each thirty inches wide; the central light of the east window is forty-four inches wide, the two adjacent lights being each thirty-four, and the two outer lights thirty-one inches wide.

For these measurements I am indebted to my friend the Rev. H. T. Ellacombe.

from the more intense and golden *pot-metal* yellows, to which it affords an agreeable contrast. In many instances, however, especially during the latter part of the reign of Edward III., the stained yellow is almost as deep as the *pot-metal* yellow. Its facility of application soon brought it into general use¹. By its means the former coldness of white pattern windows was speedily corrected, and artists soon discovered in the richness and power of the stain an efficient substitute for many of the *pot-metal* colours. Thus a broader and less mosaic style of colouring was gradually introduced, white and yellow glass entering more largely into the composition of coloured designs. The presence of so much yellow had also the effect of imparting to the later Decorated glass paintings a gay and lively appearance.

The arrangements of this period are very various, in regard both to individual windows, and their general disposition in a building.

The most common windows are those which are either wholly composed of white patterns, or of an intermixture of white patterns and coloured pictures.

A white pattern window generally has a coloured border to each of its lower lights, which sometimes returns along the bottom of the window. The patterns until the end of the reign of Edward I., are in general hardly distinguishable from the Early English; like them they are principally composed of white glass, and consist of scroll-works of foliage confined within panels, or of ornamented quarries, resembling the Early English in form and character. The drawing, however, is generally slighter than the Early English, and the ground of the pattern is rarely cross-hatched². After this time, and even a little before it, the patterns consist either

¹ The yellow stain is represented in plates 14, 47, and 55, which last plate, by a mistake of mine, has been placed

amongst the Perpendicular examples.

² See plates 8 and 10. See also cut 10.

of flowing tendril-like scrollages, bearing natural leaves, and overlaid by a geometrical network of bands and fillets, which however does not confine the ramifications of the foliage¹: or else of ornamented quarries. The earlier patterns are often enriched by the introduction of some colour into the bands and fillets, and by a few little coloured ornaments inserted in them at distant intervals; the later, principally by *staining* certain portions of the white glass yellow.

When the lower lights are much enriched with colour, the tracery lights are sometimes filled with coloured pictures, or ornaments: but they more commonly contain a white pattern, enriched with colour to a similar extent as that in the lower lights. In the earlier windows it is not unusual to find the pattern in the tracery lights Early English in character, while that in the lower lights is of pure Decorated character^m.

A single shield of arms, near the top of each of the lower lights, is often the only extraneous subject introduced into pattern windows. The most ordinary mode of introducing pictures into them, is by inserting, in the middle of each of the lower lights, a low-crowned canopy, covering a figure, or a group of figures; which produces the general effect of a belt of colour running across the window. Sometimes, when the length of the lights admits of it, two such belts of canopies are introduced, leaving considerable portions of the white patterns displayed between, above, and below them. A shield of arms enclosed in a panel, or small coloured ornament, usually occupies the centre of

¹ See plate 11. See also Lysons' "Derbyshire," p. 221, where an engraving is given of three Decorated patterns from the chancel of Norbury church, Derbyshire. See also engravings of some of the patterns from the chapter-house, York, in Browne's "Hist. of the Metropolitan Church of St. Peter, York," plates LXXIX, LXXXIII, LXXXV,

LXXXVIII, L, XCII. A pattern from the same place is engraved in Shaw's "Encyclopædia of Ornament."

^m See for instance, a plate (rather incorrect in its details) of part of the south window of the chancel of Trumpington church, in Lysons' "Cambridgeshire," p. 38.

each of these intervals. The head of the window, when two or more belts of canopies cross the lower lights, is in general filled with coloured subjects, in order to preserve the balance of colour; but it is oftener filled with a white pattern, when only one belt of canopies traverses the lower lights.

Another, but by no means so common a mode of introducing pictures,—the practice being mostly confined to early examples,—consists in the insertion at regular intervals in each of the lower lights, of panels containing coloured pictures; the ground of the lights being a white pattern.

There are numerous modifications and varieties of each of the above-mentioned arrangements.

Some early Decorated windows have the whole of their lower lights entirely filled with simple panels containing pictures^a; others, at all periods of the style, with a series of small canopies with single figures, or groups of figures beneath them, piled up closely one above the other: coloured subjects in either case being placed in the tracery lights. The specimens of the first arrangement, and the earlier examples of the last, closely resemble the Early English medallion windows, in depth of colour and general effect: but in the later instances of the last arrangement, the masses of deep colour are separated by the heads of the canopies, which being principally composed of white and yellow glass, impart a general lightness to the whole design.

Figure and canopy windows^o are not in general met with in this country before the middle of the style. In small windows, the whole of each of the lower lights is sometimes filled up with the subject; but the canopy usually

^a See an example, "Monographie de la Cathédrale de Bourges," Etude XIV.

^o See an engraving of a figure and

canopy window, Lysons' "Gloucestershire," plate LXVI.

does not reach quite down to the bottom of the light, leaving a space beneath, which is filled either by a small picture, or a pattern^p. This is especially the case with votive windows, the portraits of the donor and his family occupying the space below the principal figure^q. In some instances, several panels containing coloured pictures are placed one above the other and inserted beneath the base of the large canopy. Other windows have each of their lower lights quite filled up with alternate tiers of canopies containing large figures, and panels containing small subjects, placed one above the other. The tracery lights of the above-mentioned windows are generally filled with coloured pictures.

The effect of a Decorated figure and canopy window, though very rich, is on the whole lighter than that of an Early English one. The canopy resembles in form those in the architecture and sculpture of the time^r. It is tall in proportion to the figure it covers. In general many of its members are variously coloured, but white and yellow glass, both stained and pot-metal, are chiefly employed, especially in the spires and crockets.

The principle of extending the same design (not being a Jesse) into all or several of the lower lights of a window, which was so commonly done in the succeeding style, was introduced on the continent very early in this style.

The usual mode of carrying it into execution, is by placing at the bottom of the lower lights a grand architectural composition, consisting of a large canopy in the centre,

^p Some of the patterns at the bottom of the lower lights of the east window, York minster, are engraved in Weale's "Quarterly Papers," vol. i. plates 7, 8, and 9.

^q See a plate of some glass in the east window of Beer Ferrers church, Devon, in Lysons' "Devonshire."

^r See plate 12. See also Lysons' "Gloucestershire," plate LXVI. A representation of one of these figures, and part of one of the canopies, is given in Shaw's "Dresses and Decorations of the middle ages," vol. i. See also Lasteyrie, "Hist. de la Peinture sur verre," plates XXXVIII, XL, and XLIII.

(often extending into two or three lights,) flanked by smaller ones, in the manner of a *triptic*. The principal subject is represented under the central canopy, and other subjects, in general accessory to it, under the side canopies. The spires of the canopies, backed with a coloured ground, reach some way up the lower lights: a white pattern is usually shewn above them, and the head of the window is filled with coloured ornaments to balance the mass of colour below.

In some cases two tiers of canopies are thus introduced, the upper ones only terminating in spires.

In this manner* designs are represented on a superior scale to that permitted by the usual method. In England the same design is often spread over the whole of the tracery lights of a window; and it is probable that examples may be found of a similar arrangement in respect of the lower lights.

Jesse windows. In these windows are displayed some of the most beautiful designs of this period. The lower lights are usually surrounded with a border, and filled with a series of oval panels, formed by the branches of a vine. Each panel contains a figure on a coloured ground, usually of a different colour to the ground outside the panel, upon which outer ground the side leaves and branches of the vine are spread. The same principle of decoration usually extends to the tracery lights: the most important of which contain figures, or heads, within detached oval or circular panels, formed by a vine-branch, the leaves of which are turned outwards†.

* A more decided instance of the adoption of a design not conforming to the architectural divisions of the window, is furnished by those foreign windows in whose lower lights are placed large circular panels, extending into more than one light, and containing one large

picture, which is cut most completely by the mullions of the window. Examples of this arrangement may be seen at St. Thomas's church, Strasburg, and in the south aisle of the nave of Munich cathedral &c.

† See a general representation of a

Wheel windows. The great defect of the wheel windows in this style is a spottiness and want of breadth of colour, arising from the practice of ornamenting each tracery light with a separate pattern, in general surrounded with a border, which insulates it from the other patterns. This defect is less observable in those foreign windows in which the colour is chiefly disposed in and about the centre and circumference of the circle, the intermediate space being left nearly white. A small picture sometimes occupies the centre or eye of the window, sometimes even this is filled with a pattern, or heraldryⁿ. The eye of the wheel in the tracery of the east window of Merton chapel, Oxford, is filled with coats of arms, and other ornaments, on a coloured ground; and the radiating lights principally with diverging scrolls of foliage, also on a coloured ground. This circle has somewhat the appearance of a star.

In the works of this period may be perceived, though perhaps not so distinctly as in those of the last, a certain selection of particular kinds of windows for particular situations. Thus figure and canopy windows are more frequently to be met with at the extremities of a building, and in lofty situations, than in other positions: while pattern windows, with belts of canopies or panels in them, are generally reserved for the side windows of aisles &c. But there is no positive rule on the subject; the former description of windows being often found in the sides of a building, and the latter in the clearstory.

There appears also to be no positive rule for the relative disposition of coloured and white windows.

In some buildings, the whole of the windows are com-

rather late Decorated Jesse, Lysons' "Gloucestershire," plate XCIII. Details on a larger scale are given in plate XCIV. of the same work.

ⁿ See a small Decorated wheel window, Lasteyrie, "Histoire de la Peinture sur verre," plate XLV.

posed of white patterns, enriched merely by the insertion into them of shields of arms, or panels containing pictures; in others, the east window alone presents a mass of colour; in others, the east and west windows are wholly filled with coloured designs, the colour in the side windows being confined to their belts of canopies; whilst in others, all the windows are completely filled with coloured pictures.

The abrupt alternation of masses of variegated colouring, with masses of, comparatively speaking, white glass, seems to have been a favourite practice throughout this period. It is strongly exemplified in pattern windows with belts of canopies crossing them; and in those foreign windows which have their heads of tracery full of colour, and the bottom parts of all their lower lights occupied with one general design richly coloured.

The remains of the glass of this period are perhaps more numerous than those of any other. I have scarcely ever entered a church without observing in it some fragments, at least, of Decorated glass.

An excellent example of a general arrangement in this style is afforded by the nave and its aisles of York minster.

The great west window, and the west windows of the aisles, severally present to the eye one mass of colour, a good deal qualified however with yellow and white glass. Three tiers of figures and canopies, placed closely together, one above the other, occupy all but a small portion at the bottom of the lower lights of the west window of the nave, which portion is filled with patterns much enriched with colour. The tracery head of the window is principally filled with coloured ornaments. The lower lights of each of the west windows of the aisles contain a figure and canopy apiece,—that in the central light has a small panel beneath, (in either case a modern restoration,) containing a picture executed in colours,—and their tracery lights are

filled with coloured pictures. All the side windows of the aisles, with the exception of two on the south side, viz., a Jesse window, and a window exhibiting, amongst other designs, three large figures and canopies, have their lower lights crossed with two belts of richly coloured canopies and subjects, an interval of white pattern being left between; and their tracery lights filled with coloured pictures and ornaments. The clearstory windows are of similar character; coloured ornaments filling their heads, and two belts of panels, containing coloured pictures, crossing their lower lights, the remaining parts of which are occupied with a white pattern. The glass in the nave and aisles of Strasburg cathedral, especially that in the lower windows, resembles Early English work in effect; it is however very early Decorated. The colouring in all the windows is stiff and mosaic, but the upper windows are somewhat lighter in appearance than the lower, more white and yellow glass being introduced into them. The side^{*} and west windows of the south aisle, and the west and adjacent side window of the north aisle, have their lower lights entirely filled with a series of canopies or panels containing coloured pictures; and their tracery heads with coloured pictures and ornaments. These windows are quite dark with colour, and as mosaic as an Early English medalion window. The remaining side windows of the north aisle[†], and also the windows of the entire clearstory, and those of the north side of the triforium, are figure and canopy windows. The clearstory windows, with one exception, contain in each of their lower lights two figures and canopies one above the other. The triforium windows on the south side are filled with coloured patterns. The

^{*} One of these windows is engraved in the "*Monographie de la Cathédrale de Bourges*," Étude XIV.

[†] A lower light of one of these windows is represented in Lasteyrie's "*Histoire de la Peinture sur verre*," plate XL.

great rose window is a beautiful star, richly coloured, with a considerable interval of white glass between its centre and circumference.

The windows of the choir of Cologne cathedral are altogether as light as those of the nave of Strasburg are dark.

The choir is surrounded with seven chapels, each lighted by three lofty windows. The central window of the eastern chapel is a mass of colour; its subject being a very singular Jesse*. The tracery lights, and lower part of the lower lights of the two side windows of this chapel, are respectively filled with richly coloured patterns and pictures, the long intervening space being filled with a white pattern. All the windows of the other chapels are of similar character to the two last described, except that the pattern of the central window of each chapel is rather more enriched with colour than that of the side windows.

The heads of the clearstory windows are full of colour, and a row of canopies richly coloured occupies nearly the whole of the lower half of their lower lights. The intermediate space is filled with a white pattern, except in the east window, where it is richly coloured. All the windows of the triforium are filled with white patterns, except those below the east window, which have coloured patterns. Thus, in this instance, the chief masses of colour are confined to the windows at the extremities of the clearstory and choir aisle.

The chancel of Merton chapel, Oxford, affords an early and good example of the general arrangement of the glass in a small building.

The original glass still remains in the tracery of the east window, and presents a mass of colouring as deep and

* A description of this window is given in the "*Monographie de la Cathédrale de Bourges*."

almost as mosaic as that of an Early English medallion window. In all probability its lower lights originally were equally replete with colour^a. White pattern windows, with a single belt of canopies running across their lower lights, occupy the sides of this building.

The chancel of Norbury church, Derbyshire, is another early specimen.

The side windows are all filled with white patterns, with a shield of arms inserted near the top of each of the lower lights^b, and it may be presumed, from the fragments that remain, that this was likewise the arrangement of the east window.

The glass in the chapter-house, at York, is also of early date, belonging to the reign of Edward II. All the windows are filled with white patterns, in which panels containing pictures are inserted.

Amongst other valuable examples may be mentioned Stanford church, Northamptonshire, of the time of Edward III.; the chancel of Chartham church, Kent, of the close of the reign of Edward II.; Lincoln and Hereford cathedrals; the clearstory windows of the apse of Tewkesbury abbey church; St. Ouen's church at Rouen; Freyburg minster in Germany, &c. The superb east window of the choir of Gloucester cathedral, though the architecture is itself Perpendicular, may be cited as a pure Decorated example, late

^a They are now filled with a glass painting by Price, executed in 1702. [Dallaway's *Observations on English Architecture*, p. 281.] This does not harmonize with the glass in the tracery lights, yet I should be sorry to see a modern antique substituted for it.

^b All the side windows of Norbury chancel have been engraved in Nos. 1 and 2 of "the *Ecclesiastical Architecture of Great Britain from the Conquest to the Reformation*, London, by Messrs. Bowman and Hadfield, Architects." It would be presumptuous in me to assign a date to the chancel itself, but I am

quite certain that the glass in these windows is of the first, or early in the second quarter of the fourteenth century. The only window which retains more than the mere border of the original pattern-work of its tracery lights, is the second, counting from the westward, on the north side of the chancel. The pattern is of white glass covered with Decorated scroll works. The tracery patterns in the heads of the other windows, (which have been engraved by Messrs. Bowman and Hadfield,) are, with the exception of their borders, mere modern inventions.

in the style however. The arrangement of the glass in this window is original, and deserves attention. The same principle,—that of filling the upper part of the window with white ornamented quarries, and the lower part with figures and canopies, &c.—was carried out in the side clearstory windows of the choir; as sufficiently appears from the fragments which remain in the northern windows.

The following are some of the most remarkable peculiarities in detail which have not been noticed in the course of the foregoing remarks. A more extensive and minute examination of these matters will conclude this section.

The figures exactly resemble those in the illuminations and sculpture of this period: they are severe in drawing, but more refined than the Early English, and their draperies are likewise broader, more ample, and flowing. The figures are often placed in very forced and extravagant attitudes. A gradual but sensible diminution in the thickness of the outline took place as the style advanced.

White glass is quite as much used as flesh-coloured, in the naked parts of the figures. The hair is often stained yellow.

The canopies almost invariably have flat fronts, straight-sided gables over the main archway, and in general high spires and pinnacles. Their details correspond with those of the canopies on the seals and tombs, and in the architecture of the time. Much pot-metal colour enters into their composition, to which the richness of their appearance is owing. In many instances the smaller members, as shafts, capitals, spires, &c., are capriciously coloured, red, blue, green, &c.; and when the canopy consists of white and yellow glass only, a considerable portion of the yellow used is pot-metal.

The white glass, in the earliest examples, is in general of the same texture and rich tint as the Early English, but

it gradually became greener, fainter in colour, and thinner in substance. The blue also became lighter, and the red less streaky and uneven towards the close of the style. The *pot-metal* yellow is rich, deep, and golden, frequently inclining to a rich greenish brown hue.

The flesh-coloured glass is sometimes of a more decided pink tint than the Early English, but it is in general lighter, and more yellow.

Heraldic achievements were frequently introduced into the borders of windows, as well as upon shields; the latter are always of the heater form^c, and are unaccompanied with mantlings, crests, &c.

I shall now proceed to a minute examination of the details of Decorated glass paintings under the following separate heads.

1. TEXTURE AND COLOUR OF THE GLASS.

There is no apparent difference between the glass of the latter part of the last, and the early part of the present period, either in texture or colour. It preserved its richness of tone until the end of the style, but gradually became less *substantial* in its appearance.

The early Decorated ruby is as streaky and uneven in tint as the Early English; but, as the style advanced, the streakiness diminished, as well as the thickness of the colouring matter on the sheet; a proof of which last circumstance is afforded by cut 1, given in a note to the introduction. At the end of the Decorated period ruby glass is sometimes found almost quite evenly coloured.

The deep blue glass gradually became lighter. The green generally used is warm and rich, but a cold green, like that of an emerald, may be remarked in many works at all periods of the style.

^c See plates 8 and 13.

The white glass, in general, during this period, is of a fine *rich* sea-green colour. It gradually became lighter in tint towards the close of the style, at which time it varied exceedingly in thickness. Some of the later glass is strongly tinged with yellow; but variations from a yellow to a blue-green, and from a blue to a yellow-green, may be remarked in the white glass throughout the style. White glass of a cold blue tint, by no means strong in colour, may even be met with in some of the earliest Decorated glass paintings; but this is an exception to the general rule, that the earliest white glass is more strongly tinted with green than the later white glass.

Decorated white glass always appears to have been very susceptible of the yellow stain, which, when exposed to a sufficient heat, acted with great power, changing the white glass to a fine deep rich yellow, varying from lemon to orange. This is particularly the case when the white glass itself is of a yellow hue. In some instances indeed, the yellow produced by staining is of a cold greenish tint, arising sometimes from some accidental variation in the quality of the glass, but more frequently, as I presume, from the slackness of the furnace. The glass painters of this period in general subjected their glass to a very considerable degree of heat, as is evident from the frequent oxidation of the metal composing the stain, and the consequent redness of the colour. Towards the middle of the style the yellow stain was occasionally applied to light blue pot-metal glass, which it changed to a bluish yellow^d.

The pot-metal yellow glass is in general of a fine deep golden hue, frequently approaching a rich greenish brown. The lightest pot-metal yellow is less green in its tint than the lightest stained yellow, and the deepest pot-metal yellow

^d See instances taken from the glass of St. Stephen's chapel, Smith's "Anti-

quities of Westminster," in the 2nd plate, facing p. 232.

is less orange than the deepest stained yellow. Beautiful contrasts of colour are produced, by the employment of pot-metal, and stained yellow, in the same glass painting.

Flesh-coloured glass continued to be used throughout this style in heads, and naked figures: though by no means so extensively as during the preceding style, white glass being frequently substituted for it. It is usually paler, and more yellow, than the Early English flesh-colour; when stronger, it more nearly approaches a direct pink.

2. MODE OF EXECUTION.

In the glass paintings of this period, as in those of the last, shadow is, to a considerable extent, as well as form, expressed by dark outlines. These outlines are, however, in general, not so thick, or so frequent, as in Early English glass paintings.

Most Decorated glass paintings, especially the earlier ones, exhibit a peculiar freedom of touch, and firmness and precision of handling, which, together with the ready flow of the colour, the transparency and fulness of the outline, and the great expression conveyed by it, cause them in some measure to resemble, in their execution, the paintings on an ancient Etruscan, or Greek vase.

The practice of putting a cross-hatched ground on white glass, for the purpose of bringing out more prominently a pattern delineated on it, so common during the last period, was soon abandoned in this; but cross-hatching continued to be used in small ornaments until the end of the style.

Shading, when resorted to, was always executed according to the *smear* method. The smear shadows in the draperies of large figures, at all periods of the style, often attained a very considerable depth, the colour being laid on so thickly as almost to occasion opacity in the darker parts of the shadows.

Diapers were profusely used for decorative purposes, their smear ground being applied to either side of the glass as convenience dictated*.

3. FIGURES.

A very considerable advance in the art of representing the human figure took place during this period.

Its proportions are better preserved than in the former style, the figures in general not being too tall, or slender.

The draperies are likewise treated in a broader, more easy, and natural manner.

The technical incompleteness of the drawing is much more felt in the hands, feet, and other naked parts of the body, than in the heads, many of which are very finely treated.

An easy and graceful attitude is given to the standing figures, by slightly swaying the body backwards, and resting its weight on one leg, somewhat after the manner of the antique†: but this position was often exaggerated to an absurd degree, the figures, in consequence, frequently seeming as if they were in motion, when, according to the nature of the subject, they ought to appear at rest.

The earlier heads of this period, though more delicate and refined than those of the last, do not lose any of their force, or vigour of character. The features still continued to be strongly outlined, but in general a more varied and natural expression was imparted to the eye and eyebrow. The latter is sometimes however too apt to resemble a *pent-house*, in the angularity of its form. In the Decorated, as in the Early English heads, there is seldom any attempt

* See specimens of diapering, plates 12 and 13. See also Smith's *Antiquities of Westminster*, plate facing p. 232, in which are represented, with praiseworthy accuracy, the little particles of ground

which the glass painter omitted to remove, or clean off, when scraping out the pattern.

† See plates 12 and 14.

made to distinguish the iris of the eye from the pupil, the whole being in general represented by one black dot.

The mouth, which is small in the majority of instances, closely resembles the Early English model; sometimes however, towards the middle of the style, the upper and lower lips are represented.

CUT 6.



Lullingstone Church, Kent.

The hair and beard are generally drawn in flowing locks, boldly expressed by the varying thickness of the outline.

The general contour of the face is a well-proportioned oval; and the chin is smaller than in the Early English examples.

Towards the close of this period, however, there is often less character, and more conventionalism in the heads.

The eye-brows become more uniformly arched, and, together with the nose and mouth, less strongly marked. The countenance also loses much of its agreeable form, the forehead being flat, broad, and somewhat projecting; too great prominence is likewise given to the cheek bones, and too great width to the face in proportion to its breadth. The chin is also often represented too small and pointed ^a.

The heads and naked parts of the figures are often composed of the flesh-coloured glass before mentioned ^b, but white glass is as generally used for this purpose, in which case the hair and beard are frequently stained yellow¹. This is however seldom the case when flesh-coloured glass is employed. In the larger figures, the beards and hair are often of a different colour to the countenances, being made of blue, yellow, green glass, &c., leaded in.

In the earlier specimens, the hair is often entirely covered with a thin wash of brown paint, and the face and other parts of the figure are shaded exactly as in the former style. A practice of taking out lights in the ground covering the hair, to increase the prominence of some of the locks, was however soon introduced ^k. Many figures at all periods of the style were executed in outline only, and not shaded at all¹.

The draperies of this period are much more flowing and ample than those of the last: and in ecclesiastical and female figures the robe is generally long, and envelopes the feet.

^a Cut 6 (see last page) is from an early example of the fourteenth century. In character it strongly resembles an Early English head. The heads in plates 9, 37, 40, and 48, are all of the early part of the fourteenth century, and are thoroughly Decorated in character. Plates 49, 12, 47 and 55, (the latter of which has by mistake been lettered "Perpendicular,") are taken from specimens of the middle part of the fourteenth century, the first example being rather earlier than the two

others. While the subject of plate 51 (which is again represented in plate 14) is of the close of the Decorated period. See some fragments of heads, the full size, from St. Stephen's chapel, Westminster, Smith's "Antiquities of Westminster," in the last of the three plates facing page 232.

^b See plates 37, 43, 49.

¹ See plates 14, 47.

^k See plate 49.

¹ See plates 37, 43.

Saints are usually habited in a long robe confined round the waist with a girdle, and a loose cloak, the broad elegant folds of which add greatly to the grace and dignity of the figure. A jewelled band or stripe of colour, differing in tint from that of the rest of the robe, sometimes crosses it horizontally. The name of the individual represented is often written round the edge of the nimbus. The hair of female saints is generally disposed in long and smooth locks, and the hair and beards of prophets and saints in fine wavy locks, while angels are generally represented with their hair in short thick curls. The heads of prophets are commonly covered with a sort of bonnet or cap, and are not surrounded with a nimbus. The figures frequently hold scrolls in their hands bearing inscriptions.

The mitre still continues of a triangular form, and its ornaments are simple, but the crook of the staff is often of elaborate workmanship, and frequently composed of a beautiful scroll of leaves.

The secular female costume usually consists of a garment fitting tightly to the arms and body, and having a wide long skirt training on the ground. Upon it are sometimes depicted the armorial bearings of the wearer. A cloak or mantle is often loosely thrown over it. The wimple is a frequent adjunct to the head-dress, and the hair is usually plaited down on each side of the face, and enclosed in a net, or caul.

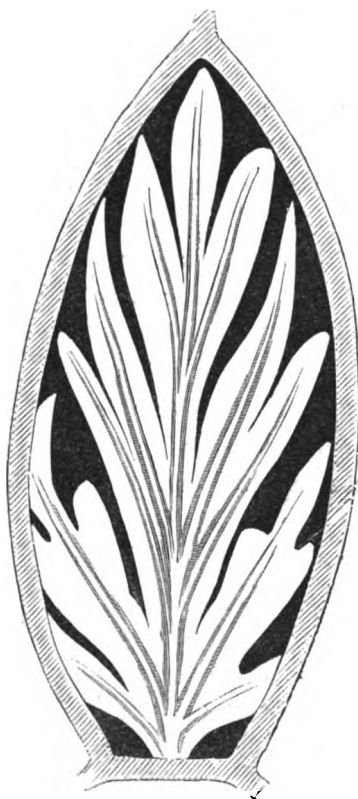
The ordinary costume of dignified laymen consists of a long robe and loose cloak; the hair and beard being arranged in fine loose wavy locks. The heads of boys are generally covered with short thick curls. The usual secular dress is a close short jerkin, or tunic, reaching about half way down the thighs, and tight hose and shoes; upon which-model the armour of this period was formed. The military dress, in the earlier examples, consists of the

hauberk and chausses of mail, or of gamboised armour; in the later, of a mixture of plate and mail; and in the latest, of plate only. Armorial bearings are generally represented on the surcoat and shield, and knights mounted and accoutred for the tournament, wearing the heaume and its crest, were occasionally depicted on glass during this period.

4. FOLIAGE.

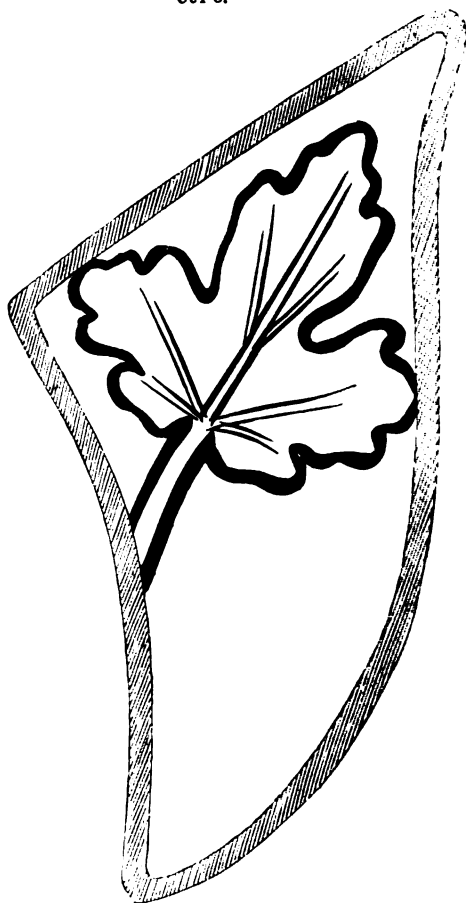
The general character of the foliage, properly belonging

Cut 7.



Dorchester Church, Oxfordshire.

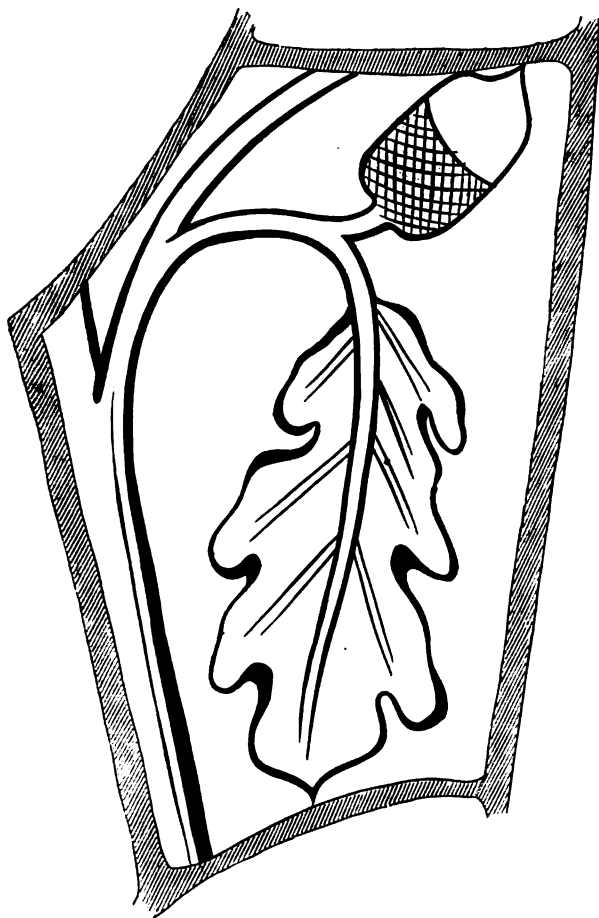
Cut 8.



Southfleet Church, Kent

to this style, is natural, and it is easy to recognise amongst it the leaves of the maple, oak, ivy, hawthorn, and of

CUT 9.



Stanford Church, Northamptonshire.

many wild plants^m. The flower usually represented is the rose. The earliest specimens of it are formed of the scal-

^m See plates 11, 12, and 13. Cut 7 is taken from an example early in the fourteenth century, as are plates 38, 39,

41, and 44; plates 50, and 53 A, and cuts 8 and 9, are from examples of the middle of the fourteenth century.

loped ornament^a, but towards the middle of this period it becomes five-leaved, and, when single, almost exactly resembles a full-blown eglantine or common dog-rose^o; its leaves are very rarely *lipped*, or turned over at their extremities. It is however frequently double-leaved, and occasionally treble, or quadruple. When only double, and painted on white glass, the seeds and outer row of leaves are usually stained yellow^p.

The more conventional ornaments composing the architectural details, the finials and crockets of canopies, &c., are likewise taken from foliage, and drawn in a spirited, lively manner^q.

Scroll-works are formed of the twining tendrils of plants, from which spring, it must be admitted, without much regard to nature, the leaves of either plants or trees, as the case may be^r. When represented on a coloured ground, the tendril preserves an uniform colour^s, though its leaves are sometimes variegated.

The new method of drawing foliage did not at once supersede the old, and accordingly the Early English character of ornament is frequently preserved, especially in scroll-works, and ornaments represented on white glass, until the end of the first, and during the early part of the second quarter of the fourteenth century. The old ornament is however, in general, drawn slighter than during the preceding style^t, and the ground on which it is delineated is seldom cross-hatched. It is moreover almost always found in conjunction with Decorated ornaments^u.

^a See plate 42, and cut 15.

^o See plate 14.

^p See plate 15.

^q See plates 12 and 53.

^r See plate 11.

^s See an engraving in Fowler's "Mosaic Pavements and Stained Glass," from an example at Ch. Ch. Oxford.

^t See cut 10, in the opposite page.

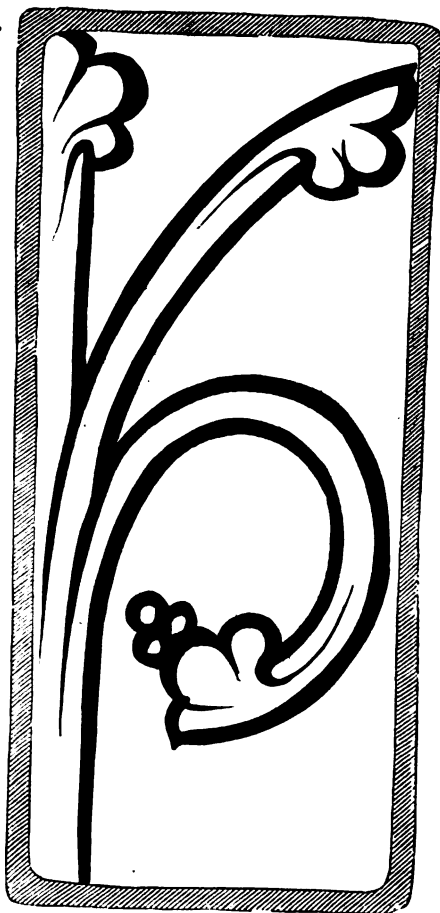
^u See plate 10. A part of the inner border of this window is represented the full size in cut 10. This glass is, I think, of the early part of the second quarter of the fourteenth century. Plate 44 represents, at the full size, part of a scroll-work in another of the chancel windows of Chartham, which is of the same date as that represented in plate 10.

In some of the earlier specimens may be seen the very change from the conventionality of the Early English foliage, to the more natural character of the Decorated ^v.

Throughout this period the leaves are always drawn with great firmness and precision. The thickness of the line in outlined patterns on white glass, diminished considerably towards the close of the style.

The beaded ornament, of the former period, is to be met with in the early works of this style, in general, however, accompanied with a narrow border or edging on each side. A practice was, however, soon introduced of placing the beads further apart, and inserting a couple of small dots between each pair ^v. Two little rings often supply the place

CUT 10.



Chartham Church, Kent.

^v See plate 7. Another tracery light of the same date, and in the same church, has its foils ornamented with an ordinary maple-leaf.

^x See for instance plate 44.

^y The subject of cut 11 is of the latter part of the fourteenth century.

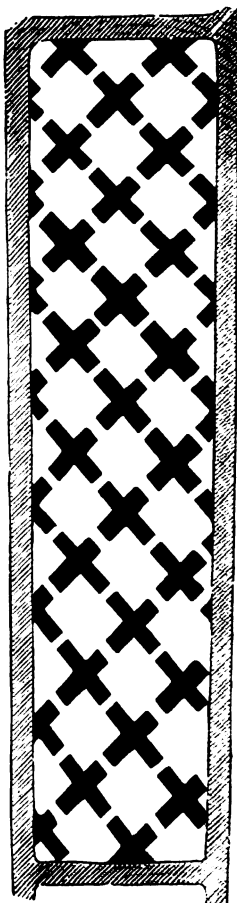
CUT 11.



Westonbirt Church, Gloucestershire.

of the dots, and sometimes a larger ring is substituted for the large bead. The scalloped ornament, and its combinations, seem to have gradually gone out of fashion towards the middle of this period, about which time a singular kind of decoration was introduced, which may be called *the cross ornament*: a representation of it is given in the margin. It was formed by cross-hatching a piece of glass with thick lines, and afterwards cutting them asunder with a stick, or other pointed instrument, capable of removing the brown enamel colour from the glass before it was burnt. This ornament continued in use to the end of the style.

CUT 12.



5. BORDERS.

Borders, both to lower and tracery lights, are throughout this period seldom dispensed with.

The ordinary border of a lower light is formed of a stalk running up the sides of the light, either in a serpentine direction, or straight, from which spring leaves, acorns, &c., at regular distances. The stalk, which is sometimes ornamented with a pattern, is frequently of

CROSS ORNAMENT.
Temple Rothley Church,
Leicestershire.

one colour, and its leaves of another: and the border generally has a coloured ground².

Sometimes the border consists of a series of grotesque animals, either placed at short distances apart, with a piece of coloured glass between them³, or else they are introduced climbing up a stem of foliage, or sitting amongst its leaves; the entire border in this case being represented on a coloured ground.

There is a window in the nave of York minster which has, in its lower lights, a series of small figures and canopies, by way of border.

Heraldic borders are very common at all periods of the style. They consist either of coats of arms properly emblazoned, and arranged in rectangular patches one above the other; or of badges, merchants' marks, or

CUT 13.



Stanford Church, Northamptonshire.

² See plates 10, 11, and 12.

³ See plate 52. In this example the fish is white, and the border round it stained yellow. It is of the latter part of the Decorated period. The nonde-

script engraved in cut 13, forms part or such a border as is described in the text. It is of the middle part of the fourteenth century.

other devices, separated from each other with pieces of coloured glass. All these borders are often edged on one or both sides with a narrow strip of coloured glass, or with the beaded ornament, &c.^b

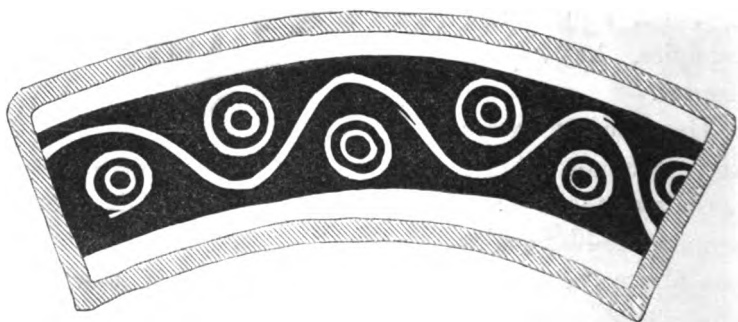
Some borders, in general late in the style, are composed of white and yellow ornaments, of rectangular shape, placed, like the grotesque animals first mentioned, at intervals up the sides of the window, with coloured glass between them; sometimes two or three of the upper foils of the cuspidated head of the light are filled with lions' heads, or roses^c.

The border is almost universally separated from the stone-work by a margin of plain white glass, which in many of the earlier examples is an inch broad.

The width of the border, including the white margin, is usually one-sixth of the entire width of the light: but there are a few rare instances of small narrow windows whose only border consists of a strip of white glass.

A border is sometimes carried along the bottom of the light; in which case its pattern frequently differs from that of the border at the sides^d.

CUT 14.



Southfleet Church, Kent.

^b See a specimen of an heraldic border, Lasteyrie, "Histoire de la Peinture sur verre," plate XXIV.

^c As in plate 15, No. 1. This specimen

is quite of the close of the Decorated period.

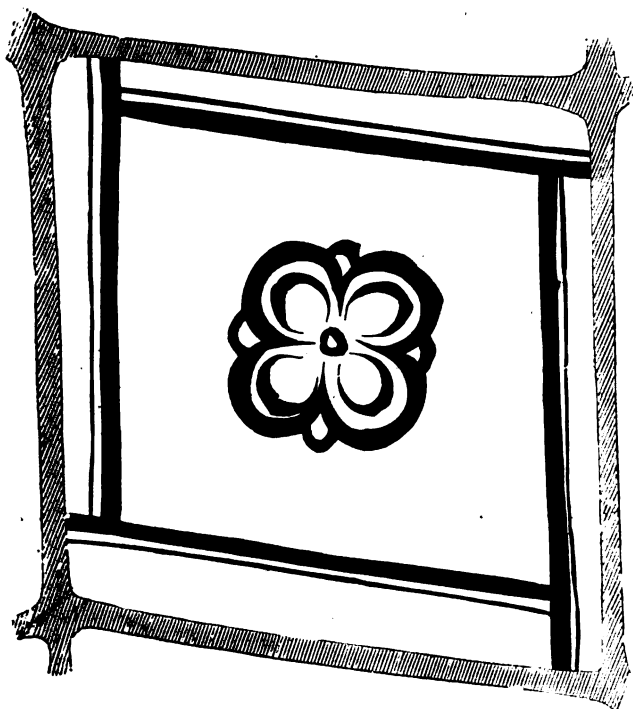
^d See plate 11.

The ordinary border of a tracery light, is either a plain margin of white glass, or the beaded ornament, which is usually stained yellow, and always separated from the stone-work by a white edging. When the light is large, a broader kind of border is often used, formed of roses, quatrefoils, or other ornaments, in little squares, and separated from each other by pieces of plain coloured glass. This border has a narrow edge of white glass between it and the stone-work.

6. PATTERNS.

These are composed sometimes of ornamented quarries of white glass, upon each of which is repeated the same

Cut 15.



Selling Church, Kent.

N

leaf or pattern, represented in the earlier examples merely in outline*, but in the later, often wholly or partially stained yellow. Sometimes a running foliated scroll-work is carried over the quarries. The quarries are frequently banded on their two upper sides, and the bands are occasionally smear-shaded. A quarry pattern is frequently enlivened by the insertion at regular intervals in the centre of the light, of small circular panels containing heads, small coats of arms, or other ornaments executed in colours, or in white and yellow stained glass. Coloured stars with wavy rays, are sometimes, in like manner, leaded in amongst the quarries; especially in late Decorated work.

The more common Decorated pattern, however, consists of a number of narrow fillets and bands, some coloured, some ornamented, but for the most part plain and white, disposed in the form of lozenges, ovals, quatrefoils, and other geometrical figures; or even simply reticulated, and curiously interwoven with each other. Behind this network, and occasionally entwined with it, are spread running scrolls of foliage, outlined on white glass, and usually branching off from a main stalk which runs straight up the centre of the window. The leads follow the course of the bands, and form an essential part of the pattern, which is generally further enriched by the insertion, at regular distances, of little coloured panels, containing heads, small shields of arms, patterns composed of leaves, and other devices, or occasionally a sacred emblem, as the double triangle†. In the later examples the yellow stain

* Cut 15 represents a quarry of the early part of the fourteenth century, it is from the same window as the subject of plate 8. The quarries in plates 39 and 45 are also of the early part of the fourteenth century. None of these quarries are stained. Plates 14 and 15 represent specimens of quarries of the latter part,

and close of the style.

† See plate 11. See also the other plates referred to in a former note (l. p. 65.) The lion's head represented in plate 46 originally formed the central ornament of a pattern. It is of dark green glass, and is of the middle of the fourteenth century.

is often applied to the leaves and acorns of the scroll-work, &c. : sometimes the foliated scroll-work is rendered more conspicuous by being smear-shaded.

The patterns in clearstory windows, when the height would prevent more minute work being seen, are sometimes formed of *plain* pieces of white and coloured glass leaded together. These patterns resemble in their general effect those which have been already described. The ground-work of the lower lights is composed of plain white glass, cut into various geometrical forms, the complicated character of which serves as an equivalent for a painted pattern. The tracery lights of windows of this description, are often surrounded with a narrow strip of plain coloured glass by way of border, and are enriched in the same way as tracery lights commonly are, by the insertion of small coloured circular panels ; the only difference being that the glass of which these circles are constructed is not painted with any pattern. A shield, bearing a red cross on a white field, and formed simply of plain pieces of white and coloured glass, is inserted in the centre of one of the tracery lights of a clearstory window on the north side of the nave of York minster.

The Early English patterns are, as before stated, often introduced in the earlier works in this style, with however, in general, a certain admixture of Decorated details*.

Cross-hatched grounds, to bring out an outlined pattern on white glass more distinctly, are by no means of common occurrence in English work during this period.

Richly coloured ground patterns also are seldom to be met with in English work, except in the back-grounds of panels: the interstices between the pictures, when closely placed, being in general filled with architectural details, or scroll-works of foliage on coloured grounds. They usually

* See plate 10.

consist of pieces of glass of various colours, cut into roundels, or other geometrical shapes, having patterns painted on them, and embedded in some general ground colour.

The ordinary German Decorated patterns are generally far more highly enriched with colour than the English; they are also bolder in design, and abound in cross-hatched grounds on the white glass^b. The French patterns more commonly bear a closer resemblance to our own; but the running scroll-work, is in general more entwined with the bands, than is usual in English work. Many minute differences in the drawing of the leaves, &c., may also be remarked in English, German, and French patterns.

7. PICTURES.

These are represented either on panels, or under canopies; or, when placed in tracery lights, on plain or ornamented grounds, either white or coloured. The general treatment of the subject is similar to that described under the former style. The design is simple in its composition, and not overcrowded with figures, and is generally represented on a stiff coloured ground, which is usually diapered. Clouds are occasionally introduced, as in representations of the Ascension, for instance, not as a pictorial embellishment, but as mere stiff accessories to the subject. Their form and colour are very conventional, as are also the representations of animals, trees, architectural details, and other like objects.

^b Several German patterns from Strasburg are represented in the "Monographie de la Cathédrale de Bourges;" and a pattern from Attenberg, near Cologne, in Shaw's "Encyclopædia of Or-

nament." See a French Decorated pattern in Lasteyrie, "Hist. de la Peinture sur verre," plate XXXI. Two patterns from Chartres cathedral are given in Shaw's "Encyclopædia of Ornament."

The panels are of various shapes, and contain, in general, but one subject apiece. They are usually edged with a narrow strip of white, or coloured glass, usually left plain, but sometimes ornamented with beads, &c.

8. CANOPIES.

The canopy forms a very important feature in Decorated glass paintings. It is extensively used to cover groups, as well as single figures. Its form and proportions vary exceedingly.

Some canopies, as for instance those used in tracery lights, or those which are carried like a belt across a window, are seldom more than twice or thrice the height of the figure under them; whilst others, as in figure and canopy windows, when the lower lights are long and narrow, are surmounted with very lofty spires, carried to a vast height above the figure, the effect of which is sometimes quite overpowered by the superstructure.

The details of the canopies resemble those on the seals, the sepulchral brasses, and in the architecture of the time. The crockets and finials of the later examples in general possess a graceful, leaf-like characterⁱ. In the earlier specimens they are stiff, and more resemble the Early English.

The low-crowned canopy, so commonly used in forming belts of colour across a window, is very simple in its arrangement. It consists of an arch, either plain or cuspidated, (beneath which the figure is placed,) surmounted with a flat-faced gable, which is sometimes straight-pointed, sometimes ogee-pointed, and almost always crocketed, and crowned with a large finial. The side pilasters from which

ⁱ See plates 12 and 53.

the arch springs, in general run up on either side into pinnacles^k. The spire of the canopy, if it has one, generally springs from a low flat-faced tower rising from behind the gable. The tower is usually pierced with windows, and furnished with pinnacles, from which flying buttresses are thrown to the spire, and the side pinnacles. The canopy terminates abruptly at bottom without a pedestal, and the feet of the figure rest on a piece of turf or grass, or sometimes on a pavement, or even on a straight line of colour, or a straight inscription. The space beneath the main arch of the canopy does not appear like a recess. So much of it as is not occupied by the figure, is simply filled up with a flat coloured ground, in general richly diapered, and no attempt is made by shading, or otherwise, to produce the effect of its being a hollow niche. Although white, and yellow pot-metal glass usually predominate in the canopy, many of its architectural members frequently are otherwise coloured, pot-metal glass being much used for the purpose, and diapers are profusely employed on the pilasters and other flat surfaces; a practice which imparts to Decorated canopies a peculiarly rich and variegated appearance.

It is not unusual to meet with spires and pinnacles formed of green or red, or pot-metal yellow glass; or to find the tympanum of the principal gable, or the chief window in the tower above it, coloured blue, green, &c. Those parts of the canopy which are executed on white glass, are often much enriched with the yellow stain. The head of the canopy is generally backed with a coloured panel of

^k The canopy represented in plate 12, is one of a belt of canopies which crosses the lower lights of a three-light window; the border of the light may be seen on either side of the canopy. The canopy itself is executed principally in white and yellow pot-metal glass, and is backed by a diapered red ground. Its finials run into

the next glazing panel, and are there embedded in a white pattern ground. There is likewise a large space of white pattern ground below the canopy. See some more complicated examples, *Lasteyrie*, "Hist. de la Peinture sur verre," plates XXXVIII. and XLIII.

colour, sometimes flat-topped, sometimes trefoil-headed. The spires, however, occasionally run into the white pattern work above them, without any backing of colour.

The ordinary canopies in figure and canopy windows, differ from the canopy described only in their superior height, and greater complication of parts, occasioned by piling up tabernacle-work on the tower above the gable. When a figure and canopy window consists of three lower lights, the central canopy is often shorter than the side ones, and elevated by being placed above a panel containing a separate subject.

In many continental examples, the interior and groining of the canopy are carefully represented, especially when the canopy is of considerable size, extending into more than one lower light. Of these, instances may be seen in the windows of the choir of St. Sebald's church, Nuremberg, some of which are dated 1379.

It would be a tedious and unprofitable task to enumerate the varieties of which Decorated canopies are susceptible. Some very excellent and early arrangements of canopies, extending into more than one light, may be seen in some of the aisle windows of the choir, Cologne cathedral; in St. Thomas' church, Strasburg; and in a large south window of the transept of Augsburg cathedral, restored after the original design, in 1837. The panels of colour which back some of these continental canopies, are of excellent and varied design.

9. TRACERY LIGHTS.

The variety of designs for tracery lights in this style, is equalled only by the variety of the shapes given to the openings themselves.

The most common design is formed by inserting one or more small coloured circles, or round pieces of coloured

glass, having a rose or other pattern painted on them, in the principal tracery lights, like insulated dots of colour, the remainder of the lights being filled with white glass, either plain or ornamented. The general colouring of the tracery lights is, as before stated, regulated by that of the rest of the window. When the lower lights are richly coloured, the tracery lights, in general, abound with colour likewise, and *vice versa*. The east window of the choir, Gloucester cathedral, seems to afford a striking exception to this rule; but as the lowest tiers of lights of this window are likewise filled with white patterns, the whole arrangement may perhaps be referred to a partiality of the glass painters of the Decorated period, for abrupt contrasts of masses of white and coloured glass.

At the earlier periods of the style, when large cuspidated circles were common in architecture, it was not unusual to occupy the central space, to the points of the cuspidations, (and which is generally defined by a strong iron ring, connecting the cuspidations together,) with a circular panel, having an ornamental border, and containing either a coloured picture or heraldry, or even a coloured ornamental pattern of leaves, &c., drawn on it in outline, or with scrolls of foliage on a coloured ground; a narrow strip of white glass in either case separating the pattern from the stone-work¹.

The centre of the smaller cuspidated openings of the same period, and subsequently, is often filled with a round panel, containing a head, or coloured leaves; or is even sometimes composed of plain pieces of coloured glass formed into a geometrical pattern; and the surrounding foils are either wholly occupied with an outlined pattern on white glass, separated from the stone-work by a narrow strip of white glass, or are enriched by the in-

¹ See plate 7.

section of a small circular coloured panel in the centre of each opening^m.

Occasionally the Early English scroll-work on white glass, may be found inserted into the head of a geometrical tracery window, the pattern being adapted to the form of the openings.

Other tracery lights, partaking more or less of the character of the quatrefoil, are in the earlier examples frequently filled in part with a panel, or niche, containing a figure, or even with a figure by itself, executed in colours, the residue of the opening being covered with a white, or variegated scroll of foliage on a coloured ground, and furnished with a narrow edging, or border, of white glass next the stone-workⁿ. In the later examples, however, such scroll-works on coloured grounds appear to have been discontinued, and the ground of the opening, when a figure was introduced, was merely diapered, or quarried with ornamented quarries^o; or, in case a shield of arms was inserted, the rest of the space between it and the border of the light, was occupied with leaves, &c., represented by filling in round them with black paint^p. At all periods of the style, however, the centre of the quatrefoil is often found to be filled with a circular panel containing a coloured picture, or pattern, and surrounded with white glass with leaves, &c., in outline upon it^q.

The smaller triangular-shaped, and other openings, were, in the earlier windows, generally filled with a piece of plain

^m In the eighth No. of the *Archæological Journal*, p. 363, is a representation of a curious piece of panelling, in imitation of a window of three lights, with three cuspidated circles in the head, of the early part of the reign of Edward I., which ornaments one side of the chapter-house of Thornton abbey, Lincolnshire. The centre of each of the lowest circles, up to the points of the cuspidations, is filled with a circle, in relief, on which is carved an ornament like a star: the foils

are left plain. This affords a curious instance of the manner in which a decoration usually supplied by the glazing, is introduced in stone-work.

ⁿ See an example, "Weale's Quarterly Papers," part I. plate V.

^o See plate 14.

^p See plate 13.

^q See an instance, "Weale's Quarterly Papers," part IX. plate 2; and see *Lasteyrie*, "Hist. de la Peinture sur verre," plate XLII.

coloured glass, separated from the stone-work by a strip of white. In the centre was often introduced a rose, or other circular ornament, on a piece of glass of a different colour to that forming the ground of the light. In the later windows, such openings were more commonly ornamented with a leaf, shewn by filling up the space round it with black paint, or a diaper pattern^{*}; or an animal, bird, or fish, ingeniously contrived to fill up the space, and separated from the stone-work by a narrow edge or margin of white glass; or with a little coloured rose, or other round object, surrounded either with white or yellow leaves, represented in the manner before mentioned; or, with a diaper pattern.

In their selection of designs for the head of a window the artists seem often to have been guided by a somewhat capricious taste: and it is frequently difficult to discover any connexion between the subjects represented in the different lights; or between them and those in the lower lights.

Sometimes, however, one general design occupies the whole of the tracery lights of a window, portions of it being represented in each. The Day of Judgment is a rather favourite subject for this situation. Christ, seated on a throne, usually occupies the principal topmost light, and angels, and saints, those in its immediate vicinity. Below are represented the dead rising from their tombs, &c. Each light generally embraces a distinct portion of the subject, and is always bordered with a narrow strip of white glass, which produces a very brilliant, and sparkling appearance. The unity of the design is sometimes assisted by an uniformity of ground colour in certain groups of tracery lights.

Sacred emblems are far more frequently to be met with

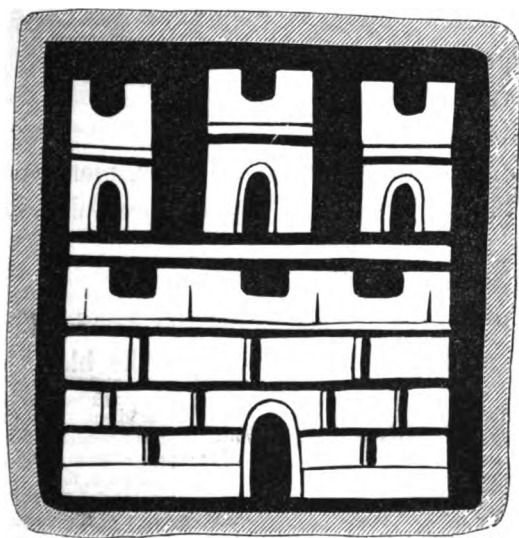
^{*} See plate 50.

in the tracery, than in any other part of a window : but they do not appear to have been very favourite subjects during the Decorated period. When the principal tracery light is of moderate size, it is sometimes appropriated to an emblem, but when large, a smaller tracery light is usually assigned for this purpose.

10. HERALDRY.

The simple shield, unaccompanied with either helmet, or mantling, was in use throughout this period : it was

Cut 16.



Fawkham Church, Kent

always of the heater form, becoming, however, somewhat longer and narrower, its sides being more nearly parallel to each other in their upper parts, towards the end of the

style*. The earlier shields are often of considerable size, and are, in general, not ornamented with diaper patterns.

They are usually inserted by themselves in the upper part of a lower light[†], or sometimes on a circular coloured panel in the midst of a geometrical tracery light. In some of the windows of the chapter-house at York, two shields are thus placed in a circle, the one above the other[‡].

The later shields are very richly diapered, and are generally of smaller size, to allow of their insertion into panels in the lower lights and into the tracery lights of the later Decorated windows, where they are often represented as if suspended by a strap from a stem of foliage.

Four quarterings are not unusual even in very early shields, but the charges are always very simple.

The introduction of heraldic devices, merchants' marks, &c., into the borders of windows, has been already noticed[§].

11. LETTERS.

The letter generally used, was the Lombardic capital[¶], but towards the middle of the style the black letter was

CUT 17.



Great Dunmow Church, Essex.

* Compare the shield in plate 8, which is of the early part of the fourteenth century, with that in plate 13, which is of the close of the Decorated period.

† See Lysons's "Derbyshire," p. CCXXI.

‡ See a faint outline of this arrangement, Britton's "Hist. of York Cathedral," plate XXXII.

§ The castle represented in cut 16, originally formed part of a coat of arms, argent, a cross gules charged with five castles, or. This is evident from an engraving of the same window, in which it now is, in Thorpe's "Customale Roffense," facing p. 114, in which two examples of

this coat are given. The castles are now inserted in the border of the window, and being separated from each other, by pieces of plain red glass, form a very genuine-looking heraldic border. The castle is of the early part of the fourteenth century. An heraldic lion, of the middle of the fourteenth century, is represented in plate 48. The fleur-de-lis in cut 17 is from an example of the latter half of the fourteenth century; it should be compared with the fleurs-de-lis in plate 8, which are of the commencement of the century.

¶ See plate 12.

introduced, and employed concurrently with the Lombardic.

12. MECHANICAL CONSTRUCTION.

Glass paintings of this period present hardly any peculiarities in this respect. The lower lights being furnished with horizontal saddle-bars, the work is leaded together in rectangular glazing panels, which are bound to the saddle-bars with leaden bands. The glazing panels generally coincide in length with the principal divisions of the subject represented; and the leads, when not thrown into the outline, with the course of the saddle-bars. In German lead-work of this period, each glazing panel is often surrounded with a double lead, which greatly adds to the stability of the work, but this precaution does not appear to have been taken by the English glaziers.

The glass of the tracery lights is likewise attached to horizontal, or perpendicular saddle-bars, sometimes to both, or to the circular iron rings before mentioned, when they exist, in the cuspidated circles of geometrical tracery*.

* The reader is requested to read the following note in connexion with the remarks made, ante, p. 77, on Decorated shading.

The discovery of the art of *stippling* a coat of enamel brown, appears, however, to have been made during the Decorated period. Shadows having a stipple grain, may occasionally be detected in Decorated glass paintings, of the latter half of the fourteenth century. The proportion they bear to the smear shadows, in the same work, is indeed always small; and they seem to differ from smear shadows only in their granulated texture. Their ground, like that of a smear shadow, was

never suffered to extend over the lights of the picture, but was in the first instance strictly confined to the parts intended to be in shadow. In this respect, therefore, these shadows materially differ from stipple shadows, properly so called; which, as before stated, are formed by covering the whole surface of the glass, with a granulated ground, which is afterwards removed from such parts as are intended as lights.

The method of shading in question, seems most to resemble the mode by which, formerly, the deeper shadows, in a stipple-shaded glass painting, were heightened.

SECTION III.

THE PERPENDICULAR STYLE.

ALTHOUGH Perpendicular glass paintings, taken collectively, are easily distinguishable from Decorated glass paintings, by the form of their details, the greater breadth and delicacy of their colouring, and their more refined and finished execution, these changes were introduced so gradually as to render it difficult, if not impossible, to determine exactly when the Decorated style ended, and the Perpendicular style commenced. I have made an arbitrary selection of the year 1380 as the period about which the change of style may be considered to have taken place; but the Perpendicular style can hardly be said to have become thoroughly established until the beginning of the fifteenth century. During this interval, therefore, glass paintings may be classed as Decorated, or Perpendicular, accordingly as Decorated or Perpendicular features prevail in them. I think that the Perpendicular style may be deemed to have terminated with the use of Gothic ornamental details, about the year 1530; consequently, one hundred and fifty years, or thereabouts, may be assigned as the period of its duration.

The substitution of ornaments of a peculiarly flat, delicate, and conventional character, for the more decided, and naturally-shaped leaves, of which so much of the detail of Decorated glass paintings is composed, constitutes a striking feature of the Perpendicular style, though one which was by no means fully developed until the fifteenth century. The increasing use of the yellow stain, and of white glass,

in lieu of pot-metal colours, and the gradual adoption of a less mosaic, and broader style of colouring, may be traced throughout the interval between 1380 and 1400, but the predominance of white and yellow stained glass, over the other colours, is perhaps more strikingly manifested after the beginning of the fifteenth century.

The *stipple method* of shading, which so materially increased the pictorial resources of the art of glass painting, appears to have been introduced about the commencement of the fifteenth century. It is true that glass paintings did not display the full powers of stipple shading until upwards of a hundred years afterwards, but it was immediately discovered that this system of shading afforded remarkable facilities for imparting a *highly finished* appearance to glass paintings. The introduction of stipple shading may also be regarded as having sensibly affected the colouring of glass paintings; for the ancient artists appear to have soon perceived that mosaic arrangements of stiff and powerful colours, were unfavourable to a display of the more minute gradations of light and shade in pictorial compositions; and that the very shadows themselves tended to correct the coldness of white glass, and to increase the richness of the lighter kinds of coloured glass.

These considerations may serve to account both for the introduction of large masses of white glass, relieved with the yellow stain, into the richest picture windows even of the commencement of the fifteenth century, a practice which involved the general adoption of a broader style of colouring; and also for the diminished intensity of tint in the different kinds of white and coloured glass, as well as the greater harmony, liveliness, and gaiety of their hues, and evenness of colour, in proportion as the style advanced, and the new principle of colouring was carried out.

The taste for broad and soft colouring, and delicacy of execution, manifested in Perpendicular picture windows, naturally, or rather necessarily, extended itself to Perpendicular pattern windows also, which display these qualities in as remarkable a manner as the former class of windows. Owing to these circumstances, Perpendicular glass paintings in general, when contrasted with Decorated glass paintings, are apt to appear paler, and less rich in colour; in their general effect, however, they are more brilliant, softer, more silvery and delicate; and what they seem to lose in power they gain in refinement.

The earlier Perpendicular picture glass paintings are more bright and sparkling than the later examples, in which the powers of stipple shading are more perfectly developed; but the deeper shadows, which detract in a certain degree from the lustre of the glass paintings of the sixteenth century, sensibly add to their warmth and richness; and besides, render them less flat in appearance, and more effective and distinct when seen from a distance.

The arrangements of this style are more numerous and varied than those of any other, and seem to have been adopted without reference to any fixed principle. I shall confine myself to a short notice of some of the most common and striking.

The figure and canopy window, probably owing to the grandeur of effect produced by the simplicity of its design, and the facilities it afforded for a display of broad colouring, was the favourite arrangement of this period. It was most extensively employed; and is to be found in all situations, whether at the sides, or the extreme ends of a building, below, or aloft.

In form, the canopies resemble those in the tabernacle work of the time; they generally have projecting fronts, and are large in proportion to the figures they cover, but

not so large as to overpower them, as is sometimes the case in Decorated work.

The canopy, in general, fills up the whole of the light in which it is placed; when however the light is sufficiently long, one or more small panels, containing pictures, symbolical devices, or armorial bearings, are not unfrequently introduced beneath the base of the canopy.

A Perpendicular figure and canopy window greatly differs from a Decorated example, not only in the architectural details of the tabernacle work, but also in the disposition of its colours. It has before been stated that every pot-metal colour used in the glass paintings of the time, may generally be found in the architecture of a Decorated canopy. But all the architectural members of a Perpendicular canopy, with the exception sometimes of the little windows in its head, or the groining of the principal niche, are composed of white glass; the crockets, finials, and other details, being *stained* yellow. The strong pot-metal colours are principally confined to the ground with which the head of the canopy is backed, to the figure under it, and the background of the niche. This practice of surrounding, as it were, the colouring of the picture with masses of white and yellow stained glass, is not confined to figure and canopy windows, but may be observed in almost all Perpendicular designs. It may indeed be considered as an essential feature of the style.

Each lower light of a Perpendicular figure and canopy window is occupied with a figure and canopy, and the repetition of the subject produces a very striking effect in all cases, and especially when the window itself is divided into several tiers of lights by transoms. The principal tracery lights are filled either with small figures and canopies, or with heraldry, or foliated ornaments; in all of which white glass prevails, more or less enriched with the yellow

stain : and the smaller tracery lights with white and yellow stained ornaments, or plain pieces of coloured glass*.

Another arrangement of this style, of more common occurrence however during the first half of the fifteenth century than afterwards, and which for convenience sake may be termed *the panelled arrangement*; consists in filling each of the lower lights, with the exception sometimes of a small space near the bottom, with a series of flat-topped canopies or panels, of the same width as the light itself, placed closely together; each canopy or panel containing a picture executed in white and pot-metal glass.

The tracery lights of such a window are usually occupied with small figures and canopies, or ornaments, and the vacant space, if any, below the subjects in the lower lights, is in general filled with ornamented quarries, or heraldic decorations, &c.†

The various panels are usually of the same size, and their subjects commonly bear some relation to each other; but instances may be met with where a subject much longer than the others is represented in the centre light of the window, occupying as much space as two or more of the smaller panels in the side lights, with which it is made to range.

In other windows may be noticed a belt of low-crowned canopies, each covering a figure, or a group of figures, executed in colours; which crosses the lower lights, as in

* See representations of figure and canopy windows, Lasteyrie, "Histoire de la Peinture sur verre," plate LXIX. Lysons' "Gloucestershire," p. 109. See also Hedgesland's "Description of the Windows of St. Neot's Church, Cornwall," 4to. Lond. 1830, plates II, III, IV, V, VI, X, XI, XII. As these last plates represent the windows *after* their "restoration" in 1829, they are, I fear, not very trustworthy.

† See representations of panelled ar-

rangements, Lasteyrie, "Histoire de la Peinture sur verre," plate LIV.; Hedgesland's "Description of the Windows of St. Neot's Church, Cornwall," plates I, VIII, IX, XVI. See also a plate of the east window of York minster, from a drawing by J. Haynes in 1736, published at York, 1832; a faint outline of the glass in this window is likewise given in Britton's "Hist. of York Cathedral," plate XXV.

a Decorated window ; the space above and below the canopies being filled with ornamented quarries, or in German examples, with round glass.

In other windows such a canopy or panel is placed in the middle of the central lower light only, the rest of the window being filled with ornamented quarries, &c.

In other examples a figure, standing on a bracket, occupies the central portion of one, or each of the lower lights of a window, without any canopy or background, the space above and below the figure being filled with ornamented quarries*, and occasionally enriched by the insertion into it, above or below the figure, of a small panel, or wreath, containing either a picture or a coat of arms, or a badge, a sacred emblem, monogram, or the like. A modification of this arrangement may be seen in small three-lighted windows in the fifteenth century, where a representation of the Crucifixion occupies the central portion of the middle light ; and figures of the Virgin Mary and St. John, standing on brackets, take up the central portions of the outer lights, each subject being surrounded with ornamented quarries ; and sometimes having beneath it the portraits or arms of the donors of the window.

Pattern windows in this style are by no means uncommon. They are almost always made up of quarries of white glass, ornamented with stained yellow devices and borders. Badges, shields of arms, or emblems, painted on small panels of glass, usually of circular form, are often introduced into either their lower or tracery lights, or into both. German pattern windows are generally composed of round glass.

I have hitherto been speaking of arrangements consisting of separate subjects, not extending beyond the limits of a

* See Lysons' "Gloucestershire," p. XIII ; see also the window of West Wickham church, Kent, Lysons, vol. iv.

p. 353. The figures in this window have likewise been engraved in Weale's "Quarterly Papers," vol. ii.

single lower light. It was, however, by no means an uncommon practice, in this style, to extend the same design into two or more adjacent lights, or even over the whole window. This practice, though of considerable antiquity on the continent, does not appear, from *existing* examples, to have been very freely adopted in England until towards the close of the fifteenth century; when it was often resorted to with the happiest effect, as a means of representing, on a scale as large as the figures in figure and canopy windows, groups of figures and other subjects, which, if confined within the narrow limits of a single light, must have been reduced to dimensions so insignificant as to prevent their being distinctly seen from a distance: a defect which is strikingly exemplified in the earlier panelled arrangements.

Subjects, when extending over the whole of a window, are seldom surrounded with any kind of ornament, the picture reaching quite up to the outside limits of the window: so, canopies, or other architectural ornaments, are frequently dispensed with, late in the style, even when the design itself does not extend beyond the limits of a single light. In general, however, when the same picture occupies some of the lower lights of a window, it is included within a canopy, or a bower of foliated work. These canopies being principally composed of white, and yellow stained glass, are of great use in keeping the different subjects distinct, when, as is often the case, several pictures of different dimensions are included in the same window. The effect of such an arrangement, when properly managed, is extremely satisfactory, and may be likened to that of a number of great and small pictures framed, and hung up close together. In some instances an architectural design, in the form of one general canopy, traverses all, or several of the lower lights of a window, but includes

beneath its arch several distinct figures or subjects, each confined within the limits of a single light^a.

The earlier wheel windows of this period have a star-like appearance, like those of the last; the later examples, however, more nearly resemble a rainbow. The first are composed of variegated patterns, while in the last the colours are collected together towards the circumference, and in the eye of the window, in concentric circles of different widths, and sometimes nearly in the prismatic order. A broad space of white glass, sometimes enriched with yellow ornaments, separates the colour in the eye of the window, from that in its circumference.

The earlier Jesse windows consist of a vine springing from a recumbent figure of Jesse; and which forms, by the crossing of its branches, a regular series, sometimes of oval, but more frequently of hexagonal openings, in each of which a figure is placed. The ramifications of the vine, which in general extend over the whole or greater part of the window, independently of the mullions, are usually white, and the leaves which spring from them are either white or variegated. The ground of the whole window is often of the same tint, but sometimes the insides of the openings appropriated to the figures are of a different colour to that of the general ground of the window: in other instances, when this is not the case, an alternation of colour throughout the whole design is produced by making the entire ground of each light alternately, red and blue^b.

In the later Jesse windows, the vine assumes a more playful and varied form. It is generally placed on a coloured ground, and the figures of kings and patriarchs, &c.

^a Parts of a canopy of this description are represented in some of the plates taken from the glass in the east window of the choir, Winchester cathedral, in the second vol. of Weale's "Quarterly Papers."

^b This is the case with the east window of the chapel of Winchester college. The east window of Gloucester cathedral, a figure and canopy window late in the Decorated style, exhibits a similar alternation of colour.

stand upon its branches, or sit upon foliated stools growing out of them. The branches of the vine, as well as its principal leaves, are generally coloured white or yellow; many of its leaves, however, are formed of various pot-metals. The Jesse often occupies only two or three lights of a window, the remaining lights being filled with other subjects.

I shall conclude my remarks on Perpendicular arrangements, which I fear have been already drawn out to a wearisome length, by observing that they comprise not only a great variety of new combinations, but also almost every old one which has before been noticed, and every variation of which it is susceptible. Owing to this circumstance the Perpendicular style is greatly superior to the Decorated, and Early English, in resources and general applicability.

The ante-chapel of New college, Oxford, contains some of the best examples extant of early Perpendicular glass. All its windows, except the west, retain their original glazing, which is generally in a very perfect state. They are all figure and canopy windows; and may be said to be all of the same date, though some differences of style are observable in them, marking in a very satisfactory manner the transition almost from Decorated to Perpendicular work. The figures and canopies which most partake of the Decorated character, are in the east windows of the ante-chapel: but even in these may be observed the principle of excluding all colours except white and stained yellow from the architectural members of the canopy. The windows of the body of the chapel retain their original glazing only in their tracery lights. I have little doubt but that these windows originally were likewise figure and canopy windows. New college chapel, as is well known, has no east window; but the general arrangement of the

glass in a contemporary building of like character, and furnished with an east window, has fortunately been preserved at Winchester college. The *original glass* of the chapel of Winchester college, with the exception of a few trifling fragments, does not exist, but its design has been faithfully copied in modern glass. From this it appears that all the side windows of the chapel were originally figure and canopy windows, the canopies, like those at New college, Oxon, being always confined within the limits of a single light; and that the east window was filled, as to its tracery lights, with a representation of the Day of Judgment, and as to its lower lights, with a magnificent Jesse. The great west window of Winchester cathedral, is a figure and canopy window, of very early date. I have some ground for believing, that all the side windows of the nave, and aisles, and clearstory, of the nave of Winchester cathedral, were figure and canopy windows.

In the choir of York minster, the glass of which is of different dates, varying from the end of the fourteenth century to the middle of the fifteenth^c, figure and canopy windows, panelled arrangements, and combinations of the two, are rather promiscuously employed. The original clearstory windows are indeed figure and canopy windows, but the great east window, of which a very distant view is obtained, is but a panelled arrangement, its lower lights being filled with a series of panels representing the whole Bible history, each incident forming a separate picture. Its tracery lights are adorned with single figures and ornaments^d. The great north and south windows of

^c The foregoing examples are cited principally with the object of directing the student's personal attention to them. The dates of many of these windows have been ascertained with considerable exactness, in "Brown's History of York Minster," to which valuable work the

reader is referred for further information.

^d This window has been engraved, see the former note (y, p. 106). The contract for glazing it is dated 10th Aug. 1405, and stipulates for the completion of the work in three years from that time. John

that curious projection, which may be called the eastern transepts, are likewise panelled arrangements. The lower windows of the aisles, with the exception of a fine Jesse, of similar character to that in the chapel of Winchester college, are either figure and canopy windows, or have their lower lights occupied with large figures and canopies, and a series of panels beneath them.

I may refer to the ante-chapel of All Souls' college, Oxford, as affording an example of a general arrangement of the reign of Henry VI. All the windows of the ante-chapel are figure and canopy windows, their details are of pure Perpendicular character.

Nettlestead church, Kent, a small building consisting merely of a tower, nave, and chancel, retains most of its original glazing. The south windows of the nave were almost totally destroyed by a storm many years ago, but enough of the glass still remains, I think, to shew that like the windows on the north side, they were originally figure and canopy windows. All the glass in the nave is of the latter part of the reign of Henry VI. That in the chancel appears from an inscription to have been put up in 1465, and affords a rather striking contrast to that in the nave, being more simple in its design, and much less richly coloured. The tracery lights of the chancel windows are filled with heraldry, emblems, &c., and judging from the remains in the north and east windows, their lower lights each contained a single figure, or other subject, supported by a bracket, and placed on a ground of ornamented quarries. A separate subject appears to have been inserted at

Thornton of Coventry, the glazier, in case he performed the work to the satisfaction of his employers, was to receive the sum of £10. in silver, over and above the stipulated price. Whether or not he was influenced by this consideration, it

must be admitted that he has succeeded in producing not only one of the highest finished, but also one of the most artistic works of the time. The details and execution of this window, are of the purest Perpendicular character.

the bottom of the light. In the east window, portraits of its donors are thus introduced.

Many of the churches in York afford examples of general arrangements. I may mention All Saints' church, North-street, in which figure and canopy windows, and panelled arrangements, appear to be used promiscuously; and also St. Martin's-le-Grand church. The west window of this church has five lower lights, the four outer of which each contains three tiers of square-headed panels, including separate subjects, the upper panel being surmounted with a fine canopy. In the centre light a large figure of St. Martin, under a canopy, is introduced, which ranges with the two upper tiers of subjects and canopy above them, in the outer lights; a separate subject ranging with the lowest tier of pictures in the outer lights, being placed below the feet of the figure.

The great north window of the western transept of Canterbury cathedral, appears to have been originally a figure and canopy window. It contains portraits of Edw. IVth's family, and like some of the rather later windows of Great Malvern church, and the east window of Little Malvern church, Worcestershire, has a remarkably soft and silvery appearance.

The seven east windows of the choir of St. Lawrence's church, Nuremberg, which are mostly of the close of the fifteenth century, are excellent specimens of panelled arrangements, consisting of an intermixture of small panels confined to a single lower light, with larger panels extending into two or more such lights, and varying in length and shape as much as in breadth. Similar arrangements are likewise afforded by the five windows in the north aisle of the nave of Cologne cathedral, which are of the early part of the sixteenth century. In all these windows may be observed the progressive developement of the powers of

stipple shading, and the more pictorial character assumed by glass paintings in consequence. The white glass employed is silvery, and almost colourless, its tint inclining to yellow.

Fairford church, Gloucestershire, contains perhaps the best and most extensive specimens existing in this country of painted glass of the early part of the sixteenth century*. Nearly all of its twenty-eight windows retain their original glazing, which is generally in a very perfect state; and they afford not only valuable examples of particular arrangements, but also of the general disposition of subjects throughout an entire building. All the clearstory windows of this church are figure and canopy windows, but with the exception of four figure and canopy windows in the north side of the north aisle, and four more in the south side of the south aisle, towards the western end of the edifice[†], the other windows are all filled as to their lower lights with one or more pictures illustrative of Holy Writ. The great west window for instance, is entirely occupied with a representation of the Day of Judgment: the east window has its upper tier of lower lights filled with a

* The peculiar character of the Fairford glass paintings induces me to class them as a work of the sixteenth century.

The tradition, (for it amounts to nothing more,) that Fairford church was founded by John Tame in 1493, *for the reception of this glass which he had just then taken in a valuable prize*, is improbable; for it can hardly be supposed that this costly edifice was built for the sake of such a drug as these windows must then have been considered, however highly we may now esteem them. The facts indeed seem to point to a different conclusion. The windows of the church are late Perpendicular, of thoroughly English character; yet the glass paintings exactly fit the stone-work, which they would hardly have done had they been originally designed for the windows of a foreign building. Moreover, English royal cognizances are introduced in

some of the tracery lights, on the south side of the church, the glass of which does not differ in character and effect from that in the other windows. The story, however, seems to admit of an explanation reconcileable with the date I have ventured to assign to the glass. Mr. Tame may have taken a rich prize, and applied *its proceeds* to the building of the church, and adorning of its windows with painted glass. He died in 1500. The church was completed by his son, Sir Edmund Tame, who died in 1534. [Byland's "Hist. of Gloucestershire," Lond. 1721. p. 568.] In all probability the windows were not painted until the edifice was ready for their reception.

[†] Two of the Fairford figures are engraved in "Fowler's Mosaic Pavements and Painted Glass."

painting of the Crucifixion, while in each of the five lights of the lower tier, is represented some incident of our Saviour's life, &c. These glass paintings exhibit in a striking degree the vast progress which the art had made in the early part of the sixteenth century. The shadows are bold and deep, but perfectly transparent, the drawing of the draperies is excellent, and of the figures themselves tolerably correct: and a general richness and warmth is imparted to the picture by using a fine brown enamel for shading, the colour of which is assisted by the yellow tone of the white glass. As a glass painting the great east window of Winchester cathedral is not inferior to any work at Fairford, but it has sustained such damage at different times that its general effect can scarcely be judged of^s.

The windows of the church of St. Mary of the Capitol at Cologne, are valuable examples of late German Perpendicular glass, and of the mode in which round glass may be combined with painted glass in the same window. The windows themselves consist of three lower lights and a head of tracery. In some, only the central lower light is adorned with a painting, the outer lights, as well as the tracery lights, and such part of the central light as is not occupied with the painting, being furnished with ornamented borders, and glazed with round glass. Stars of colour, which will be more particularly described hereafter, are employed to enrich the round glass in the outer lights. In other windows all the lower lights are, in equal degree, partially filled with painted glass, which sometimes consists of one general design, sometimes of several distinct subjects, the rest of the window being glazed as before mentioned with round glass, &c. In one window a square-headed canopy with a picture under it, occupies the mid-

^s Bishop Fox, whose armorial bearings and motto are introduced into this win-

dow, held the see of Winchester from 1509 to 1528.

dle part of the central lower light only. An arrangement which though resembling a Decorated arrangement in character, is not unfrequent in late German Perpendicular glass.

The round glass in the windows of St. Mary's of the Capitol, has been at some not very distant time, injudiciously smeared over with what appears to be blue varnish colour. This of course will in time peel off, and leave the glass uninjured. For the present, however, in order to judge fairly of the effect of round glazing in combination with painted glass, recourse must be had to other examples where the round glass has been left untouched; as for instance the windows of St. Peter's church, Cologne, which I shall more particularly notice in the course of my remarks on the Cinque Cento style.

I now propose to give a summary of the most remarkable Perpendicular details before I enter upon their more minute examination.

The grand characteristic of all Perpendicular glass paintings is delicacy, sometimes even bordering on timidity, and general breadth of effect. It displays itself not merely in the highly-finished execution of the figures, and the general style and tone of colouring, but in the form of the most trifling and subordinate ornaments.

Perpendicular figures are in general superior to the Decorated in grandeur and dignity, their attitudes are less fantastic, and their draperies possess a simpler and still broader character. The elaborate execution of the work is however apt to occasion the countenances of the figures to be less distinct and striking when viewed from a distance; but this defect is more observable in glass paintings prior to the sixteenth century than afterwards, when a bolder style of shading in great measure supplied the loss of the strong Decorated outlines.

Perpendicular figures are more commonly too squat than too tall in their proportions. A light pink glass was frequently used, early in the style, for the faces and naked parts of the figures; in England, however, it was soon discontinued, and white glass substituted, but flesh-coloured glass is occasionally to be met with on the continent, at all periods of the style. In the sixteenth century the flesh is coloured by slightly tinting the white glass with a red enamel, resembling china red. The hair and beards of the figures are frequently stained yellow, sometimes however they are merely coloured brown. Stipple shading was almost universally employed after the close of the fourteenth century, but smear shading is likewise occasionally to be met with throughout the style.

The canopies are sometimes flat-fronted, like the Decorated, in general however the front of the canopy is three-sided, and projects beyond the figure. Until towards the close of the fifteenth century, the space beneath the canopy not occupied by the figure, was usually filled up with a stiff ground, reaching to the groining of the canopy, and terminating at bottom in a fringe, like a piece of tapestry. In the later examples, the plan of the niche is in general distinctly shewn. A piece of tapestry is suspended behind the figure, from a rod on a level with its shoulders; above it, the back of the niche is often represented as if pierced with windows. The figure generally stands on a pavement, exhibited in very sharp perspective; when the space allows, the canopy is commonly furnished with a regular pedestal. As I have before stated, the architectural members of the canopy, with the exception of the groining of the principal niche, and the little windows in the head of the canopy, are all composed of white, and yellow stained glass. The smaller crockets from almost the beginning of the fifteenth century, are usually represented like rounded knobs of

stone^b, and the larger crockets and finials assumed, as the style advanced, a variety of fantastic shapes. In the earlier canopies, the later Decorated details prevail¹.

The ornamental work on the draperies, on the quarries, in the borders of the windows, in the architecture of the canopies, in diapers, &c., after struggling with the Decorated until the beginning of the fifteenth century, assumed an entirely new character, wonderfully harmonizing with the general breadth and delicacy of Perpendicular glass paintings. In form it is highly conventional, and *feathery*; its outline is tender and varied, and on the whole it more resembles embroidery work, in its flatness and irregularity, than any thing else¹.

The early Perpendicular white glass closely resembles the late Decorated in tint and in richness of tone; it however gradually became colder, until towards the beginning of the fifteenth century, when it assumed a cold blue green tint, which it preserved, with but little change, until the end of the reign of Henry VI., varying, however, very considerably *in depth* in different parts of the country. It then became rather yellower, and uniformly paler, but did not wholly lose its blueness until perhaps the end of the reign of Edward IV.; the glass then wholly assumed a yellow tint; not the rich yellow tint which is sometimes observable in Decorated glass, but a very much lighter and colder tinge of yellow; indeed, this glass would appear to an unpractised eye quite white. It continued of the same

^b See plate 56.

¹ See plate 15, fig. 2.

¹ Compare plate 54, which is taken from an example of the latter part of the fourteenth century, with the later Perpendicular ornaments represented in plates 58, 59, 61, 61 A, 63, 64, 70, and 19, &c. The Decorated lion's head in plate 46, should also be compared with the Perpendicular example in plate 65, and the early Perpendicular rose in

cut 19, with the late one in cut 20. I should add, that the contrast between Decorated and Perpendicular details is in reality greater in the original glass than in these engravings, for the outlines used in Perpendicular work, though sometimes as broad, are not in general, so *dark* as those used in Decorated work, a distinction which could not have been easily preserved in the plates.

general yellow tint, in some instances, of course, inclining a little more to blue, in others a little more to yellow, during the remainder of this style, and also throughout the whole of the succeeding style.

The red glass, towards the end of the reign of Henry VI., is far more scarlet and brilliant, though paler in tint than that of the early part of the fifteenth century. The streakiness and irregularity of the Early English and Decorated ruby, are not observable in the Perpendicular ruby, though a considerable, but gradual variation in depth of colour from one side to the other of a large sheet of glass, may often be remarked.

It was during the Perpendicular period that the practice arose of grinding off the coloured surface of ruby glass, so as to produce white or yellow objects on a red ground. Blue glass in Perpendicular glass paintings, is almost invariably light, and of a soft purplish hue. It took the yellow stain remarkably well, and is extensively used in the later glass paintings, broken and varied with the stain, in pictorial backgrounds. Some of the most harmonious and exquisite tints to be found in coloured glass are afforded by the purples and pinks of this period; they are at once light and brilliant, and rich and soft in tone. The same remark applies to green glass likewise.

The yellow stain varies much in colour according to that of the white glass. When the latter is cold and green, the yellow stain is cold and green also. The yellow stain, however, does not appear to have affected the Perpendicular white glass with the same degree of intensity as it did the Decorated, until the reign of Edward IV., and afterwards, when the white glass itself generally assumed a yellow tinge. The stain then became deep and golden, and the glass paintings lost in consequence much of that coldness which is so remarkable a feature in the earlier Perpendicular

works. "Double staining" was occasionally resorted to towards the close of the style.

Heraldry affords one of the most splendid sources of ornament of this period. The shield, with numerous and complicated quarterings, is often introduced, with all the accompaniments of helmet, mantling, crest, &c. Sometimes the shield is used alone, and sometimes it is enclosed within a very beautiful wreath. The earlier shields are in form simple escutcheons, straight at top, the sides parallel for a little distance, and then brought together like a reversed Gothic arch. Towards the sixteenth century the same shaped shield became squarer in form, and less pointed at bottom. Almost every variety of shield may be met with from the latter part of the reign of Henry VI. Some of the forms are extremely fanciful and elegant*.

I shall now endeavour to describe these matters more at large under the following heads.

1. TEXTURE AND COLOUR OF THE GLASS.

The glass at the beginning of this style of course did not differ from that used at the close of the last; like it, it was rich and brilliant. A considerable change, however, seems to have taken place during the first twenty years of the Perpendicular period, involving a diminution in the depth of some colours, and a loss of richness in others. The white glass appears to have sustained more variation than any other glass, and the changes in its texture afford, on the whole, tests of date.

* See plates 20 and 21. Large coloured engravings of four of the windows in the hall of Ockwell's House, Berks, are given in Lysons' "Berks," p. 247.

In this hall are also the arms of Richard Beauchamp, who became bishop

of Salisbury (in which diocese Ockwell's House was formerly situate) in 1450. As Henry VI., whose arms are in one of the windows, was deposed in 1461, these two dates seem to define the period to some part of which the Ockwell's glass should be assigned.

The white glass used in the earlier Perpendicular glass paintings, was like the late Decorated white glass, of a rich sea-green tint, and of great thickness in the sheet. It gradually lost its richness, becoming towards the commencement of the fifteenth century, of a cold greenish blue hue, but preserving its sparkling brilliancy, as well as its general thickness in the sheet. It continued of this cold tone; and its colour in the southern and western parts of England, was scarcely diminished in depth until the close of the reign of Henry VI. In the north, however, the white glass even of the early part of the fifteenth century is in general much less strongly coloured than that in other parts of the country.

During the reign of Edward IV. the white glass, which had before in general varied much in thickness, became thinner, and of a more uniform substance throughout the sheet; and its tint gradually changed from a cold blue green, to a cold yellow green, which last tint it had universally assumed by the end of the reign of Edward IV. It preserved the same yellow hue until the close of the style. This change in the complexion of the glass will be found, I believe, to be generally true, in England at least; and I have noticed similar variations in foreign glass. It is of course subject to many exceptions and qualifications, arising no doubt from accidental circumstances connected with its manufacture. Thus, for instance, in the reign of Henry VII., pieces of glass may occasionally be found of as rich a yellow as the late Decorated. On minute examination, however, considerable differences in texture will be discovered, the later glass being fuller of air-bubbles than the earlier glass; its colour also approaches the dusky tint of common bottle-green glass. The yellow stain was materially influenced by the colour of the white glass. It operated more strongly on the yellow than on

the green tinted white glass. When applied to the former species, and over-fired, it is apt to assume a deep orange tint, whilst in some pieces of the cold green white glass of the time of Henry VI., which have been over-fired, the stain has been changed in places to a light pink, or faint scarlet colour.

The ruby also underwent a very considerable change. It had quite lost its former streakiness as early as the beginning of the fifteenth century, at which time the coat of colouring matter was reduced to the thickness of a sheet of writing paper. This is exhibited in cut 1, given in a note to the Introduction. Specimens are, however, to be found as deep in colour as at any former period, though in general the ruby became lighter, and more of a bright scarlet, or crimson tint, as the style advanced.

The colour was always subject to considerable, though gradual variations in depth in the course of the sheet. The ancient artists often availed themselves (as is now done) of these accidents in the manufacture, and cut the glass with reference to the general effect of the painting; bringing the light parts of the sheet into the light parts of the picture, and vice versâ. Ruby glass, damaged or imperfect in its manufacture, was often introduced with great effect into architectural designs late in the style, to represent variegated marble. Such, for instance, is the glass in which the ruby colour appears to have vanished in certain parts of the sheet, leaving a sort of copper-green colour in its place¹. "Sprinkled ruby" was also used for these and similar purposes. The practice of abrading the coloured

¹ Ruby glass, exhibiting similar peculiarities, was occasionally used in Decorated glass paintings also. Some very large pieces of glass of this description, having a pale green colour, with here and there slight streaks of red, have been employed to represent the water,

through which wades a gigantic figure of St. Christopher, which occupies a portion of the central lower light of the second window, counting from the west, of the south aisle of the nave of York minster.

surface of ruby glass in certain places, so as to leave white spots on a red ground, appears to have been introduced during the latter half of the fifteenth century. It greatly facilitated the representation of complicated coats of arms.

The blue glass lost much of its richness and depth during this period. It is generally of a soft purple hue, but sometimes of a cold grey tint. Coated blue was introduced towards the sixteenth century, and was occasionally subjected to the same process of removing parts of its coloured surface by abrasion, as was practised on ruby glass.

The pot-metal yellow glass is generally of a fine golden colour; it is, however, sometimes with difficulty distinguished from the stained yellow. Towards the close of the style the yellow stain was sometimes used to heighten, in places, the colour of the yellow pot-metal glass, a practice which produces the same effect exactly as double staining.

The tints of purple, pink, and green glass, throughout this period, are very pleasing and harmonious. Much of the purple is formed, as mentioned in a note to the Introduction, by enclosing a layer of a light red glass within two layers of blue glass. The sheets thus constituted are not thicker than the glass ordinarily employed. A light pink pot-metal glass was much used for flesh-colour early in the style; and on the continent, occasionally at all periods of the style. It much resembles the later Decorated flesh-colour in tint. A much lighter and yellower sort of flesh-coloured glass was sometimes used in the sixteenth century; but towards the close of the style a slight wash of an enamel colour, resembling china red, was frequently applied as a flesh-colour to the white glass, of which the naked parts of the figures were made, and which white

glass seems in general to have been selected for this purpose, with reference to the yellowness of its tint^m.

2. MODE OF EXECUTION.

Perpendicular glass paintings are in general easily distinguishable from Early English, and Decorated, by their handling, whether they are executed in outline only, or with shadows combined with outlines.

It is true that throughout the Perpendicular style outlines as firm and black as those of any other period, were repeatedly used to define the eye or nose—the contour of a face—the crockets of a canopy—to mark the division between two quarries painted on the same piece of glass, and not separated with a lead line—or the like: but the outline employed after the beginning of the fifteenth century for ordinary purposes, and with which the painting is principally executed, is almost invariably not only narrower than the Decorated outline, but is also very much fainter, and less full of colour, besides being, in general, less firm and decided. Towards the end of the fifteenth century the stroke often appears ragged and uneven, as if made with an almost dry brush.

The outline is generally more juicy and flowing during the sixteenth century, though it still continues pale and transparent. In inscriptions, the letters were very frequently slightly marked out with a faint outline, and after-

^m Nothing can be more satisfactory than the fine rich warm colour of the hands and faces, &c., which, in late Perpendicular, and Cinque Cento work, are often simply painted with brown enamel, on yellow tinted white glass, whilst nothing is more disagreeable than the sickly jaundiced appearance so often exhibited by modern figures painted in imitation of the ancient. Assuming that

the tint of the white glass is in both cases alike, the difference of effect must be occasioned by the different tint of the ancient and modern enamel brown. The former is of a rich Vandyke brown tint, which harmonizes with the yellowness of the white glass; the latter is of a cold sepia tint, which is rendered colder by the colour of the glass.

wards filled in with a thick, and consequently black coat of paint.

Stipple shading appears to have been introduced about the beginning of the fifteenth centuryⁿ, and soon almost entirely superseded the smear method. Smear shadows are, however, occasionally to be met with throughout the style, principally in ornamental work, and, as it would seem, their employment arose rather from the painter's negligence in omitting to stipple the enamel ground after laying it on, than from any deliberate design.

The full power of stipple shading in producing shadows at once deep and transparent, was unknown till nearly the close of the Perpendicular style. In the earliest examples the stipple shadows, even in their darkest parts, hardly exceed the lightest smear shadows in strength. Indeed until the latter half of the fifteenth century the shadows are so light and faint as to be hardly perceptible even at a short distance; and although their ground is more spread over the glass than the ground of a smear shadow, it by reason of its thinness scarcely subdues the brilliancy of the glass. On this account, coupled also with the cold green hue of the white glass, which a light shadow was unable to correct, and the comparative thinness of all kinds of glass in the sheet, the earlier Perpendicular glass paintings are even more lustrous and gem-like than the late Decorated. Thus for a long period stipple shadows were more remarkable for their delicacy and finish, than their depth and effectiveness. Many attempts were made to strengthen the shadows with a hatching of thin lines, sometimes as thin and fine as a hair, and in representations of architecture with a flourishing of thin lines^o. In the reigns of Edward IV. and Henry VII. dots of black paint were often used to deepen

ⁿ See a late specimen of stipple shading, plate 72.

^o See plates 66, 14.

the shadows in the architecture of the canopies. The stipple ground, whether employed in diapers or shadows, was very fine in its grain until towards the end of the fifteenth century, when it became coarser. The deeper shadows had always been coarser in grain than the general ground.

The bolder and more effective shading of the sixteenth century gave greater rotundity and distinctness to the figures, whilst the shadows, being more spread over the glass, and increasing in thickness, imparted their own fine brown tint to it, and greatly increased the richness of the painting. They were however too thoroughly stippled to occasion any opacity to arise from their depth. The latest shadows are often strengthened with a hatching of dark lines^p.

At all times of the style, the shadows were applied to both sides of the glass, whenever it was necessary to increase their strength beyond a certain limit. I think it appears from a careful examination of a stipple shadow, that an uniform coat of colour was first applied to the glass, out of which the lights were taken, and that the depth of the shadow was produced by one other coat of colour—increasing in thickness in the darker parts of the shadow—the moisture of which dissolved the ground beneath it, so that the brush in stippling it, penetrated through both coats to the surface of the glass. It is only in this way that I can account for the transparency of ancient stipple shadows in their darkest parts. If great depth was required, a fresh application of a single coat of enamel was made to the back of the glass, opposite the deepest part of the shadow, and in stippling was softened off as it approached the light parts of the subject.

The colour of the enamel brown used for shadows and outlines, was, until the early part of the sixteenth century,

^p See plate 72.

in general, of a cool purple tint; it afterwards more approached the warmth, and richness, of Vandyke brown.

Diaper patterns are profusely used throughout this style to embellish draperies, shields of arms, backgrounds^a, &c.

3. FIGURES.

The mode of representing the human figure became better understood, and more refined during this period; but it is not until the close of the style, that the union of correct drawing, and just proportion, with grandeur of conception, and severity of outline, is to be met with, even in draped figures.

Even in the early part of the sixteenth century the figures, though in other respects drawn with tolerable accuracy, and exhibiting a very high degree of finish, are yet in general too slight, and too narrow across the shoulders for their height: a peculiarity which probably arose from the artist's desire to introduce large figures under canopies, leaving at the same time a sufficient space between them and the pillars of the canopy to render the figure distinct. For this practice of assimilating the proportions of the figure to that of the space allotted to it, was very common throughout the fifteenth century; and accordingly we find, both early and late in this period, a squat, thickset figure, sometimes even less than four heads high, occupying a tracery light, or a panel of a Jesse formed by the branches of the tree, or even placed under a canopy where sufficient head-room was not left for a taller figure. Towards the close of the fifteenth century however, kneeling, or even demi-figures, were often introduced into the shorter tracery

^a See plates 16, and 21, and "Weale's Quarterly Papers," part I. plates 1, 3, and 4.

lights, by which means their proportions were better preserved.

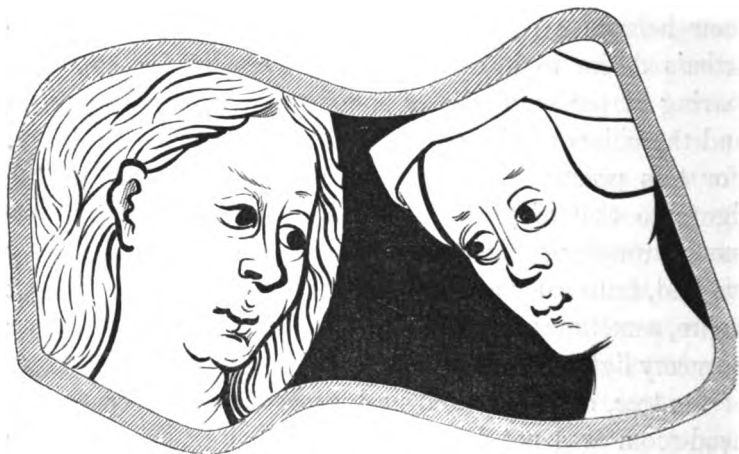
Greater repose was given to the figures in this than in either of the former styles ; and they do not, even when in action, appear in such strained or forced attitudes, as the Decorated figures.

The draperies are generally disposed in very broad and grand folds ; they sometimes hang down in a rather heavy manner, so as to impart to the whole figure a somewhat column-like appearance^r.

The German figures, especially of the time of Albert Durer, are easily distinguished from the English, by the multitude of little angular crumples into which the surfaces of the greater folds of the draperies are broken up.

The heads, even of the early part of this period, will be found on a close examination to present many differences

CUT 18.



Stowting Church, Kent

^r See plates 16, 17, 18. Other Perpendicular figures are engraved in the plates referred to in the former notes (x

and y, p. 106.) See also Weale's "Quarterly Papers," part I. plates 1 and 2, 3, and 4; and part II. plate 10.

in drawing as compared with the Decorated. In the first place, the outlines generally, are more tender and refined; and the features are more carefully and delicately shaded, stipple shadows being used, which, though light, materially assist the outlines in giving expression to the countenance. The form of the eyebrow, especially in ideal figures, is still more arched; as the style advanced, it became almost semicircular, and after the beginning of the fifteenth century, was in general defined only by a few lines, so thin and faint as in many cases to be barely perceptible; the opening of the mouth is differently shaped, and the upper lip is usually represented, as well as the lower. The iris of the eye is almost always distinguished, and shaded dark, while the pupil itself is marked by a black dot. The nose is but faintly delineated, except at the tip, which as well as the nostril is generally expressed by a dark stroke. The upper eyelid, and opening of the mouth, as well as the general outline of the face, are in general strongly defined; but all the other lines, especially those used to denote the lower eyelid, lips, and lineaments of the face, are light, and faint. The general contour of the face is oval, terminating in a small and pointed chin. These distinctive marks of course become more apparent with the progress of the style. At the end of the fifteenth century, the use of outlines was almost altogether superseded by the skilful and bold manner in which the shadows were applied; and more completely so at the close of the style, at which period the heads were in general very correctly and naturally drawn.

White glass was usually employed for the heads and naked parts of the figures. The hair of the head was often stained yellow, and in portraits especially was sometimes made brown, by a strong application of the enamel ground*.

* The heads represented in plates 57 and 62, are of the reign of Henry VI.; and those in plates 67 and 68, are of the commencement of the reign of Edward IV.

Light pink glass, as before mentioned, was however occasionally used as a flesh-colour, and on the continent until late in the style. It is not uncommon to find the faces of the larger early figures in this country composed of pink glass, with white hair and beards leaded in. A practice, which has been mentioned, of tinting the naked parts of the figures with a thin wash of an enamel colour, resembling China red, applied to the back of the white glass, was also introduced here early in the sixteenth century.

The costumes appropriated to saints and ecclesiastics, differ from those of the last period, rather in their disposition and arrangement than in their form.

The mantle is in particular much more ample, and covers the greater part of the body of the wearer; and the sacred vestments are still longer, and more ornamented with embroidered borders and diapers.

The mitre is more elongated and more highly enriched; in the later examples it a good deal resembles in form the flat side of a bellows. The head of the staff is also more elaborated, and often springs from a cluster of little canopies and pinnacles.

The secular female dress, in general consists either of a close-bodied dress, with long skirts and tight sleeves, or of a looser dress with sleeves wide at the shoulders and tight at the wrists. A cloak is often added, upon which armorial bearings (when used) are emblazoned more frequently than on the other garment. The earlier head-dresses resemble the wimple; their variety however was great, especially towards, and during the reign of Edward IV.

The secular male costume, until almost the end of Edward the Fourth's reign, appears to have usually consisted of a

These heads are all executed in white glass; the hair of some is stained yellow. Plate 69 and cut 18, represent heads of the latter part of the reign of Edward IV. In Weale's "Quarterly Papers," part II., plate 2, is an en-

graving of a head, which I should say, judging merely from the drawing, was of the commencement of the fifteenth century. As a specimen of a sixteenth-century head, I may refer to plate 72 of the present work.

furred gown of tunic-like form, reaching rather below the knees, slit nearly half way up the middle, and confined round the waist with a girdle. It had either wide sleeves narrowing towards the wrist, or small at the shoulder and wide at the wrist, like those of a surplice. The legs were enclosed in pointed-toed boots. The hair, until the latter part of the reign of Edward IV., appears to have been cropped closely all round, and after this time to have been cut straight across the forehead, but allowed to grow long behind, and at the sides of the face, and to have been there smoothed down like a club. In the reign of Henry VII., long furred gowns reaching to the feet, and obtusely-toed shoes or boots were used. They continued in fashion during the next reign also.

Military figures are represented in plate armour, generally painted on white glass, and more or less ornamented with the yellow stain. The character of the armour is often of an earlier date than that of the painting itself.

4. FOLIAGED AND OTHER ORNAMENTS.

The foliated ornaments of this period, though probably suggested by the forms of nature, bear in general but little resemblance to their original models. They are accommodated with great skill to the particular positions they occupy, but their outline is so irregular, varied, and conventional, that, as before remarked, they have more the character of embroidery work than of any thing else. It would seem that the chief object of their designers was to produce a decoration possessing breadth and flatness of effect¹.

A very common pattern, the use of which may be traced from the beginning of the style until late in the reign of Henry VI., is a sort of narrow leaf or rather stalk, with numbers of irregular foliations jutting out from its sides.

¹ See plates 58, 59, 61, 63, 64, and cut 22.

It is employed for a variety of ornamental purposes : and when used as a ground pattern on white glass, is generally strongly outlined, and the space not covered by it cross-hatched, with broad faint lines". The extremities of the side leaves are often *turned over*, and frequently stained yellow, a practice which is peculiar to this period, and is often to be met with in the representations of other leaves and foliated ornaments.

Leaves are, however, to be seen in this style, strictly speaking, quite as true to nature as any of those of the last period, especially in the vine of a Jesse. But even here the same flatness of effect is perceptible. The eyes of the leaf are indeed strongly marked, but the indentations of its serrated edges are faint compared with those of a Decorated vine-leaf, as well as being less vigorously drawn.

The foliated details of architectural work, also exhibit the same peculiarity. Their flatness and breadth of effect, and variety of outline, in general distinguish them from those of the last period.

A peculiar kind of ornament is common in German work late in the style, consisting of knotted sticks, and a species of leaf entwined and intermixed together. It is employed in the formation of canopies and bowers, frequently in conjunction with architectural details ; and a similar species of ornament may be met with in English wood carvings, of the early part of the sixteenth century.

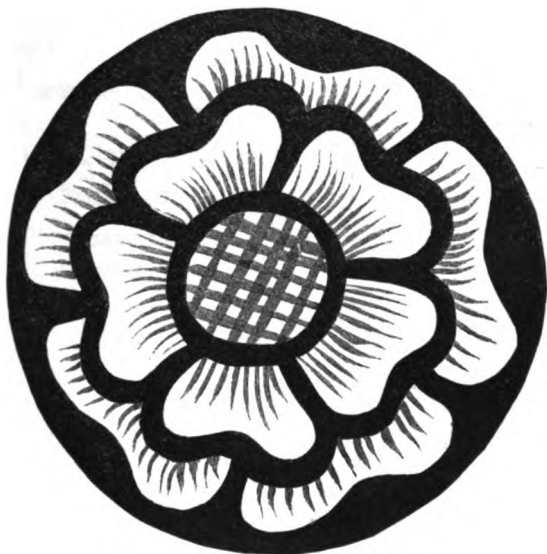
Scroll-works are of rare occurrence during this period, except in the design of a Jesse. This is generally executed on a coloured ground, the principal branches and leaves of the vine being white or yellow ; when on a blue ground some of the leaves are often drawn on the blue glass, and stained to a green colour.

A great variety of flowers were represented during this style, especially towards its close, when punning allusions

* See plates 18, 64, 63, and 58.

to the bearer's name were common in rebusses and heraldic devices. They are in general very accurately drawn. The lily as a symbol of the Virgin Mary, is often to be met

CUT 19.



In the possession of Mr. Fletcher.

with in borders and other decorations. The rose is also a very common ornament, and is more usually represented double than single. The leaves are almost universally lipped, or turned over ^x. After the accession of Henry VII. the inner row of leaves is often white, and the outer red. And at all periods of the style double roses, executed on white glass, often had their outer row of leaves stained yellow.

CUT 20.



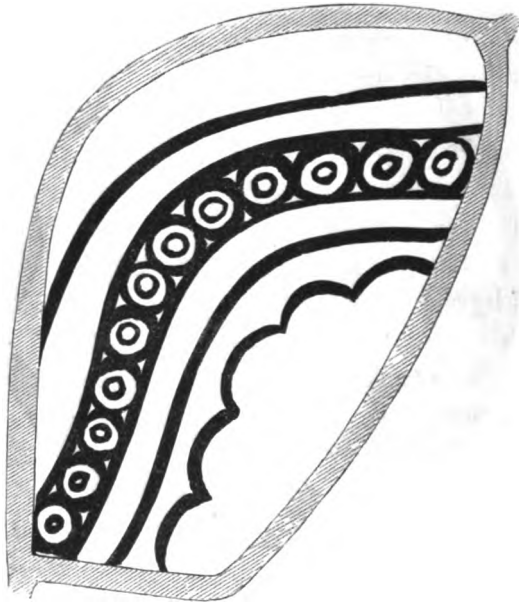
Lambeth Palace

^x See cut 20; this specimen is taken from a border surrounding the arms of

Henry VII. Cut 19 is from an example of the latter part of the fourteenth

Shading was very generally employed to heighten the effect of foliated ornaments.

CUT 21.



Mells Church, Somersetshire.

Many of the Decorated ornaments, such as the beaded ornament, the cross ornament, &c., are to be found early in this style. They were, however, soon exchanged in draperies for jewelled bands, often having a hatched ground; and in narrow borders, for a broader and lighter ornament, composed of a row of small irregularly-drawn circles in outline, having a smaller circle at their centre, and enclosed within a narrow edging on either side, which, as well as the circles, was generally stained yellow⁷.

century; it closely resembles the roses in plate 15, and possesses, almost com-

pletely, the Decorated character.

⁷ See cuts 21 and 23, and plate 70.

The same flatness of effect and irregularity of outline, which have already been noticed, extend to the representations of lions' heads^a, and, in fact, to all the other ornaments of this period^a, including the patterns on quarries^b. The variety of these last devices is immense; and their form is not always a sure indication of their date, since the same pattern often occurs both on late and early quarries. In general, however, a strongly-outlined pattern is the badge of an early quarry, but early patterns are often likewise slightly outlined. Some of the most extraordinary are those bearing a caricatured drawing of a bird or animal, which is sometimes represented in armour, sometimes harnessed to a plough, or holding a drinking-cup, &c. The most beautiful are those ornamented with a simple pattern, confined to the central part of the quarry, producing the effect of a star^c. The ornament on the quarry is generally enriched by the application of the yellow stain.

Circular wreaths were often used during the latter part of this style to enclose arms, monograms, or other devices. They are composed sometimes of foliage, sometimes of a scroll twisted round and round a stick, sometimes of pure ornaments, and occasionally of an entwined branch with

^a See plate 65.

^a This flatness may, to a certain extent, be noticed in the ornaments of even so early a border as that given in plate 15.

^b See plates 19, 60, 61, 61 A.

^c The true office of an *insulated* ornament on a quarry,—merely to enrich the reticulated pattern formed by the lead lines,—is, I think, sufficiently indicated in those simple representations of windows which, in Early English glass paintings, the effigies of the donors are so commonly made to hold in their hands; and of which an example is given in Lasteyrie's "Histoire de la Peinture sur Verre," plate XXIX. The objects in question are generally composed of a piece of white glass, which is ornamented

with a coarse cross-hatching of black lines, and with black dots, placed, one in the centre of each of the lozenges or squares, formed by the intersection of the lines. For this reason I greatly prefer an ornament which, like a spot, occupies only the centre of a quarry, as in plates 60, and 61 A, to one which is more spread over the surface of the quarry, as in plate 61. In no glass paintings is narrowness in the width of the lead more essential to goodness of effect than in quarry lights. In plate 61 A there is a certain proportion between the thickness of the lines which form the pattern, and the ancient lead-work which surrounds the quarry, while in plates 60 and 61, the pattern on the quarry is in each case completely overpowered by the breadth of the leads.

leaves sprouting from it, at regular intervals, and extending considerably beyond the limits of the wreath itself. They are in general represented on white glass, ornamented with the yellow stain.

All ornaments, except in general quarries, and narrow borders, are usually shaded.

5. BORDERS.

Some borders, early in this style, closely resemble those late Decorated examples which consist of a running stalk, with leaves and flowers sprouting from it, executed in white, and yellow stained glass, on a coloured ground. In these borders, however, the Perpendicular character is indicated by the greater breadth and flatness of the leaves.

The most ordinary Perpendicular border, which also had its type in the Decorated style, is formed by placing ornaments, executed on oblong pieces of white glass, at regular distances apart, with a plain bit of coloured glass between each. A crown, oftentimes surmounting a monogram, or a knot of foliage, enriched with the yellow stain, is a very common ornament; but the design often varies. Two

CUT 22.



Wanlip Church, Leicestershire

ornaments of different design are generally used alternately. Glass of the same colour is occasionally employed to separate the ornaments throughout the entire light; in general, however, the pieces are alternately blue and red, and sometimes blue, purple, and red. In the latter case the pieces of blue glass on either side of the light are usually made to range with each other; while the purple on the one side ranges with the red on the other. A similar law of colour prevails in those windows where the border is composed of a series of ostrich feathers, each with its pen stuck through a scroll; though its mode of application is different. The feathers alternately are represented on pieces of red and blue glass, which are kept separate by the square pieces of white glass, on which the pens and scrolls are painted.

Such borders are sometimes carried uninterruptedly round the head of the light, the ornaments being accommodated to the curvature of the stone-work. In general, however, when as is usually the case, the head of the light is cinquefoiled; a circular piece of glass with a sun, a star, a lion's head, or rose, &c., painted on it, is inserted into each of the two upper foils, or into the top foil likewise, the top foil in the former case being filled with one of the ornaments of the border. The size, and relative position of the circles, are regulated by the shape of the arch, and form of its cuspidations. When three circles are used, they often closely approximate; sometimes a little piece of glass,—one of the colours of the border,—is used to connect them together. The circles are usually composed of white glass stained yellow, but they are occasionally blue, or of some other colour. Sometimes all these circles are of the same pattern, sometimes that in the upper foliation differs from the other two^d.

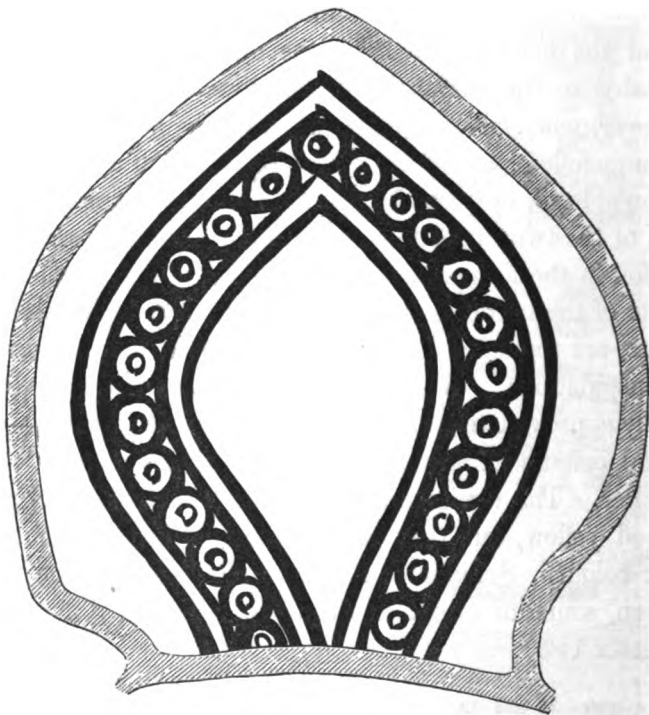
^d See plates 15 and 19. See also Hedgeland's "St. Neot's," plates X, XI, XII, and XIV; (in the tracery lights.)
Lysons' "Gloucestershire," p. cix; and

Some few instances of heraldic borders may be met with in this style, consisting of coats of arms, formed into rectangular patches, as in the Decorated style.

In many windows, especially late in the style, the border of the lower light is entirely represented on white and yellow stained glass, and consists of a raffle-leaf wound round a straight stick; of a running stem with leaves springing from it; or of some conventional ornamental pattern. These borders are generally furnished with a narrow edging of yellow stained glass on either side, the interval between which and the pattern is sometimes filled in with black paint, or left white.

The earlier Perpendicular borders bear generally the same

CUT 23.



Mells Church, Somersetshire.

proportion to the width of the light as the Decorated, but the later ones are often much narrower. The strip of plain white glass which serves to separate the border from the side of the light, is frequently omitted in Perpendicular windows. Some Perpendicular pattern windows have no borders at all, in others a mere strip of white glass is used as a border. The border seldom extends along the bottom of the light. In tracery lights, borders similar to those in the lower lights are occasionally employed; in general, however, they consist of circles or round flowers irregularly drawn in outline on white glass stained yellow, and enclosed within two yellow narrow edgings*. More frequently a narrow strip of white glass constitutes the only border to the light.

6. PATTERNS.

In some very early Perpendicular works, patterns are used, which are composed of white quarries with a running foliated scroll carried over them in outline, and enriched with the yellow stain, as in late Decorated examples. With these exceptions, however, Perpendicular patterns are, in England, universally formed of quarries of white glass, each bearing some independent ornament, which is generally enriched by staining it yellow†.

Quarries banded on their two upper sides are not uncommon, especially in early work. In late work sometimes a narrow edging is carried all round the quarry. In some examples the quarry, besides bearing an ornament in its centre, has its sides indented like a leaf.

* The border represented in cut 23 is that of a tracery light; the centres of the little circles are yellow as well as the outer edges of the border, all the rest is

white glass.

Another border of the same kind is given in cut 21, and in plate 70.

† See plates 15 and 19.

The quarries in the lower lights of the same window are all of the same size, and in general bear the same pattern ; the exceptions seem to be where quarries on which birds are represented, are intermixed with quarries having a stiff ornament painted on them, or where letters or mottos are used to adorn the quarries. The quarries in the tracery lights are sometimes smaller, and bear a different pattern to those in the lower. The lights, both upper and lower, are as before mentioned, often furnished with borders. In some windows occupying very lofty situations, the lower lights are furnished with ornamented borders, but are glazed with plain unornamented quarries of white glass.

It was a common practice towards the latter part of the fifteenth century to insert into the lower lights of a pattern window, mottos, or texts of Scripture, painted on strips of white glass extending diagonally across the window in a downward direction parallel to the quarry lines. These strips of glass are sometimes simply edged with yellow, sometimes scroll-like terminations are given to them. They are usually placed at an interval of one or two quarries apart, and the same motto or text is generally repeated on each scroll, throughout the same light, and sometimes on each scroll throughout the window^s. Ornamented quarry lights are not unfrequently enlivened by the insertion, quite independently of the arrangement of the quarries, of small circles of white glass, enriched with the yellow stain ; and enclosing within a plain or ornamented border, monograms, badges, emblems, or other devices. The border of the circle is often composed of two sticks, or bands, the one white, the other yellow, entwined together. Until the end of the reign of Henry VI., the formality of the design was very commonly corrected by leaves of trees or plants, which sprouting outwards from the wreath at regular distances,

^s See Lysons' " Berks," p. 247.

were delineated upon some of the adjacent quarries. Panels having a coloured ground, and containing a shield of arms, a badge, a human head, a demi-figure, or the like, were in the same manner, but more rarely, inserted in quarry lights. The form of the panel subsequently to the reign of Henry VI., was in general that of a circle, or other regular geometrical figure. Previously to this time, however, the panel was often placed in the centre of a beautiful foliated ornament of white and yellow stained glass, of star-like shape, the leaves of which frequently extended themselves into some of the adjacent quarries.

In Germany, and adjacent countries, the material which for convenience sake I have termed *Round Glass*, was very generally used instead of quarries. This kind of glass seems hitherto to have attracted but little attention, but I trust that a brief notice of it in this place, will not be deemed improper or useless, considering its intrinsic beauty, and its importance, either as a substitute for painted glass, or as an accompaniment to it^h.

^h The following mention of Round glass, occurs in Le Vieil, "L'Art de la Peinture sur Verre," p. 200.

"Félibien ['Principes d'Architecture,' chap. xxi. de la Vitrerie] établit pour exemple des vitres blanches les plus anciennes, ce qu'il appelle *des cives*, telles qu'il s'en voit en Allemagne, c'est à dire de petites pieces rondes de verre qu'on y assembloit avec des morceaux de plomb refendus des deux côtés, pour empêcher que le vent et l'eau ne pussent passer; mais sans indiquer le temps où l'on usoit de cette sorte de vitres." To this the following extract from M. Félibien's work, (Paris 1690,) is appended in a note.

"C'est de ces cives ou cibles dont Jean Marie Catanée, dans ses Commentaires sur Plin le Jeune, dit que de son temps, c'est à dire, vers la fin du quinzième siècle, on se servoit pour chasser des maisons, en Italie, l'âpreté des vents froids par un assemblage de plateaux de verre, ronds, réunis et joints ensemble avec une espece de mastic. *Sicut nostrâ tempestate vitreis orbibus conglutinatis*

frigus et ventos arcemus."

M. Le Vieil in another part of his work, p. 17, n. (a) adds, that the round pieces of glass are called by the German glaziers "*cibles*." But *cible* is a French, and not a German word, signifying a target having a bull's eye in the centre. The German word "*scheibe*," in one of its significations, "a mark to be shot at," may answer in German to *cible*: but *scheibe* as applied to glass does not necessarily mean a round pane, but any pane of glass. Accordingly in a French and German dictionary, "*cives*" are explained as "*runde Glasscheiben*." "*Zwiebel*" (onions or bulbs) would answer exactly enough to *cives*, and this may be the word which M. Le Vieil erroneously writes "*cible*." But I can find no authority for applying *zwiebel*, to any kind of glass.

A window glazed with round glass is represented in the Van Eyck, in the National Gallery, which painting bears date 1434. Two other Van Eycks in the king's palace at the Hague (nos. b.

Representations of round glass frequently occur in the paintings of John Van Eyck, and other early artists, from which we may infer that it was used at least as early as the commencement of the fifteenth century. It is now very commonly to be met with in Germany from Cologne eastward, throughout the Tyrol, and Switzerland, and, as I have been informed, in Rome also. Venice, and the north of Italy, are full of it. The close resemblance which the panes bear to Venetian glass, both in texture and colour, and the countries in which they are found, have induced me to conclude that the round glass was a Venetian manufacture.

Each pane of round glass, is a miniature sheet, or table, of white flashed glass. The mark of the punt or bull's eye is in general distinctly visible in the centre of the sheet, the surface of the sheet is more or less undulated in concentric rings, and its outer edge, like that of the foot of a Venetian drinking-glass, is strengthened by a narrow lip, or rim, formed by turning down a small portion of the sheet upon itself, and which is in general hidden by the lead-work. The panes used towards the end of the fifteenth century, and

1370, d. 1441,) exhibit windows glazed with round glass. And abundance of similar examples may be found in most collections of early paintings. Round glass is represented in a painting by John Schoreel, A.D. 1520, of which there is an engraving in the second vol. of Shaw's "Dresses and Decorations of the Middle Ages." The little windows in the tabernacle-work of German glass paintings, are sometimes depicted as if glazed with round glass; instances of this may be seen in the windows of the north aisle of the nave of Cologne cathedral. A *Cinque Cento* glass painting, engraved in Lasteyrie's "*Histoire de la Peinture sur Verre*," plate LXXIII, also exhibits in its background a circular window glazed with round glass.

I do not recollect to have met with any ancient example of round glass in England, except in a window of the bishop's

chapel, Chester cathedral, which looks into the cloister. The architecture of the window itself is late Perpendicular. An exterior view of the window, in which the round glass is indicated, is given in Prout's "*Antiquities of Chester*." In the woodcut representing Cranmer's Confession of Faith, in St. Mary's church, Oxford, March, 1556, in Fox's "*Acts and Monuments*," fol. Lond. 1576, p. 1781, the windows are clearly filled with round glass. The architecture is however evidently not taken from St. Mary's; it is precisely similar to that in another cut, p. 571, representing a scene at Rouen, in which round glazing likewise occurs. No inference can therefore be drawn from this cut, that the windows of St. Mary's, Oxford, were ever glazed with round glass. These woodcuts are perhaps the work of German artists.

early part of the sixteenth, in general average four inches in diameter, and this seems to have been the size of the older specimens. They afterwards gradually increased to upwards of six inches in diameter, and as they increased in size they became smoother, and smoother, until the bull's eye and concentric undulations were almost invisible. It is indeed, owing to their smoothness, extremely difficult to distinguish the later specimens from the circular pieces of plain white glass, which appear to have superseded the use of the round glass about the close of the seventeenth century¹.

The earliest mode of arranging the panes of round glass, was to place them, touching each other, in continuous rows; in such wise that the rows, if regarded as vertical rows, would be parallel to the sides of the rectangular glazing panel; or to its ends, if considered as horizontal rows. The little four-cornered interstices thus left between the panes, were filled either with plain pieces of white, or coloured glass, or sometimes ornamented with quatrefoils, painted on coloured glass. The later, more common, and most pleasing arrangement of the panes, is that represented in plate 75. The small three-cornered interstices between the circles, are sometimes filled with plain coloured glass, but much more frequently with plain white glass. It was also a common practice to introduce at intervals, up the centre of a light thus arranged, little coloured *stars*; by filling the six interstices immediately around one of the central panes, with plain pieces of coloured glass; all the other interstices throughout the light being filled with plain white glass. The number of stars differs according to the length of the light. In some instances every sixth central pane, counting from the bottom of the light, is thus sur-

¹ Some of the windows of the Doge's palace at Venice, have been *repaired*, by inserting circular pieces of ordinary white glass in place of such of the round panes

as have been broken. I have ground for believing that the manufacture of round glass was discontinued about a hundred and fifty years ago.

rounded with colour, but the stars are often further apart. Each star alternately is in general red, light blue, or purple. The dots of colour thus introduced produce an extremely beautiful effect; they enrich the round glazing, without diminishing the breadth or harmony of its appearance.

A third mode of arranging the round panes may be seen by looking sideways at plate 75; and treating what are in fact the sides, as the ends of the glazing panel. This arrangement of the round glass is however neither very pleasing, nor very common. The interstices between the panes when thus arranged, are generally filled with white glass.

Some few examples exist, where the round panes have been cut into hexagons, and leaded together, which however does not produce a good effect.

Lights glazed with round glass are in general surrounded with a border, consisting in the earlier examples, of coloured as well as white glass, but in the later, almost always of white glass ornamented with a pattern, and enriched with the yellow stain. Of these, an instance is given in plate 75. In many cases round glass is employed to fill up a light partly occupied with a coloured picture, as for example in the windows of St. Peter's church, Cologne, &c. In all those cases in which it is thus used, the picture is terminated as nearly as possible with right lines; in order not unnecessarily to embarrass the glazier in cutting the round glass to it.

Round glass in its general effect resembles mother-of-pearl, being at once soft, silvery, and brilliant. Many continental buildings are entirely glazed with it, and its appearance is so delicate, and ornamental, that the absence of painted glass is not felt. The most brilliant specimens are the oldest; the deeper undulations of the old panes, caused by the comparative rudeness of the manufacture,

occasioning a greater play of light than is exhibited by the smoother and later glass.

The round glass of the close of the fifteenth century, and afterwards, has a yellow tinge; the earlier examples are of a greener tint.

7. PICTURES.

In Perpendicular glass paintings the pictures are in general simple in their arrangement and composition. The design, unless it extends over the whole of a window consisting of many lower lights, seldom embraces many figures. The action of the piece is usually expressed by the figures in the foreground, there being but little attempt to carry it into the background of the picture. The earlier pictures are in general of small size, being confined to the limits of a single light. They are sometimes individually enclosed within a sort of architectural frame-work, or panel; or placed under a low-crowned canopy: all executed in white and yellow stained glass. Sometimes however the subjects are separated from each other only by a saddle-bar. The figures are generally executed in white and coloured glass. When the scene is not laid within a building, a landscape is introduced behind the figures, drawn in very sharp perspective, and principally composed of white glass; on which grass, rocks, trees, houses, and other objects are represented, either simply with the brown enamel, and the yellow stain, or on pieces of coloured glass leaded in. The former is however the commonest method. The sky above is treated as a coloured ground, being often in alternate panels, red or stiff blue, and frequently diapered. An inscription explanatory of the subject, is often introduced on a scroll into the picture, or along its base¹.

¹ See for instance Hedgeland's "St. Neot's," plates I, IX, XVI. Lasteyrie, "Histoire de la Peinture sur Verre," plate LIV. See also a representation of

Towards the end of the fifteenth century the pictures often extend into two or more of the lower lights of a window, or even occupy its whole area, becoming more complicated in design according to the space they cover. They are sometimes included under canopies, or an architectural frame-work, of white and yellow stained glass, but as frequently reach quite up to the stone-work of the window, without any intervening ornament^k. The figures are generally so disposed as not to be cut by the mullions. It is wonderful indeed how little the frame-work of the window interferes with the effect of the picture, even when it extends over the whole window: the mullions are really not more observed than the saddle-bars, the whole attention being attracted to the picture.

Considerable pains were in general taken towards the close of the fifteenth century, and during the remainder of the style, to render the landscapes more pictorial. Thus the extreme distance was often represented by light blue glass varied in tint by the shading, and the yellow stain; whilst the sky above was likewise coloured light blue, and shaded so as to appear cloudy in places. As the style advanced, the sky at the top of the picture was made of a deeper blue than the sky just above the horizon, the horizon itself being kept distinct, and of a darker colour than the sky by shading the blue glass, and applying the yellow stain to it. Sometimes the horizon is defined with a lead line. In other examples a piece of white glass is inserted between the horizon and the blue clouds, and shaded so as to appear like an interval of clear sky. The sky is however occasionally converted into a plain white background,

one of the compartments of the east window, York minster, in Fowler's "Mosaic Pavements, and Stained Glass."

^k See Lasteyrie, "Histoire de la Pein-

ture sur Verre," plate LXIV. This glass is, however, rather Cinque Cento, than Gothic: but it may be cited as illustrative of the text.

which produces a brilliant and clear effect when the picture itself is richly coloured, and coloured portions of the design are carried high above the horizon. This practice seems to have been most resorted to, when from the absence of a canopy above the picture, the want of white glass to relieve the other colours would otherwise have been felt.

In the more pictorial landscapes the effect of distance in the background was increased by introducing the most powerful and vivid colours chiefly into the foreground: but this rule was often transgressed, very vivid and strongly-contrasted colours being frequently used in the draperies of the most distant figures, and in other objects the furthest removed from the spectator. In the colouring of a Perpendicular glass painting harmony of effect seems to have been the principal object aimed at.

Scriptural and other subjects executed in brown and yellow on small circles of white glass, were very commonly used towards the close of this style, especially during the sixteenth century. Their composition is often extremely good, and they are in general as admirably painted. They are frequently surrounded with beautiful borders of scroll-work or foliage, sometimes composed of coloured glass, but more usually of white glass enriched with the yellow stain¹.

8. CANOPIES.

The earliest Perpendicular canopies possess many Decorated features, both in their general form and details; the tabernacle-work, however, instead of being formed of coloured pot-metals as in the Decorated examples, is composed of white and yellow stained glass, pot-metal glass being used only for the interior of the windows of the canopies, and sometimes for the groining of the niches.

¹ See a Cinque Cento example, plate 24.

Some canopies early in the fifteenth century are represented, like the Decorated, flat-fronted, with a straight-sided gable over a large pointed, or circular arch, which covers the figure: the tower of the canopy rising from behind the gable. The crockets and finials are of Decorated character^m, but the canopy itself more frequently terminates in a sort of pepper-box, or polygonal roof, than in a spire. The side jambs of the canopy are generally flat-faced, and ornamented with long rectangular shallow sunk panels: the sides of the pepper-box being often panelled in a similar manner. The head of the canopy reposes on a coloured ground; the canopy sometimes has a pedestal, of open-work, quite unlike the heavy stone pedestal which occurs in the architecture of the time; being formed of detached pillars and arches, behind which a scroll bearing an inscription, or the name of the personage intended to be represented, is introduced. The top of the pedestal, which forms the floor of the canopy, is generally paved, and represented in very sharp perspective. In the majority of cases, however, the pedestal is omitted, and the figure rests its feet on a piece of turf, or apparently on a floor seen edgewise; the canopy terminating abruptly at bottom with the line of the saddle-bar, and another canopy, or a panel containing another subject being placed immediately beneath it. No attempt is made to represent the hollowness of the niche. The groining of the canopy is not shewn, and the whole space between the figure, and the architecture, is filled up with a flat-coloured diapered ground.

In other examples of the same date as the last, the head or hood of the canopy is three-sided, and projects over the figure. Each front is gabled, and crocketed, and fur-

^m Pinnacles like that represented in plate 53, are common in early Perpendicular work. See also plate 15, fig. 2.

This last example is however purely Decorated, though very late in the style.

nished with pinnacles at the angles. The tower of the canopy has likewise three projecting fronts, and terminates in a lofty spire. The coloured ground on which the head of the canopy is placed, shews itself in all the interstices between the little spires and pinnacles and body of the canopy; and the little windows in the tower being in general coloured red or blue, it appears at first sight as if a good deal of colour was introduced into the head of the canopy itself, though in reality its architectural parts are only composed of white and yellow stained glass. The canopy sometimes has a pedestal, similar to that last described, but whether this be the case or not, its floor is shewn in sharp perspective. The groining of the niche is sometimes indicated, but in such a manner that the ribs, &c., appear almost as an appendage to the front face of the hood. The hollowness of the niche is not shewn, the space between the architecture and the figure being filled up with a stiff diapered ground of colour.

The Decorated architectural details were entirely superseded by the Perpendicular, early in the fifteenth century, but the last-mentioned form of canopy continued in general use, without any material alteration, until the end of the Perpendicular style. The head of the canopy was always more or less elongated according to circumstances, but soon after the commencement of the fifteenth century, it became more massed and compacted together, and its architecture more confused; arches, buttresses, cornices and pinnacles being multiplied, with, as it would seem, the sole object of filling up an allotted space, without reference to the means of support. Owing to these circumstances, the head of a later canopy presents a greater and a broader mass of white and yellow stained glass than an earlier example, fewer interstices being left amongst its spires and pinnacles, &c., for the occupation of the coloured back-

ground. Throughout the style the daylight appears to proceed from the middle parts of the canopy, each of its side fronts being in shadow, as well as all but the front faces of the pinnacles at the angles, &c. Scarcely any attempt was made until the end of the reign of Henry VI. to represent the hollowness of the niche: although the stiff coloured ground which surrounded the figure, was latterly often fringed at bottom like a curtain of tapestry. In the reign of Edward IV., however, the groining-shafts were often exhibited at the back of the niche, the intervening spaces up to the spring of the groining, which is itself but slightly indicated, being filled with a coloured ground diapered. Towards the close of the fifteenth century, the groining of the niche was frequently represented in a conspicuous manner, and formed of coloured glass. The back of the niche down to the shoulders of the figure was often pierced with windows, through which a landscape, executed in brown and yellow, is sometimes visible. A piece of tapestry suspended from a rod, by means of rings, and terminating in a fringe at bottom, conceals the rest of the back of the niche. Even in the latest examples, however, the back of the canopy down to the tapestry rod, is frequently covered with a stiff ground of colour richly diapered. The pedestal of the canopy is in very late examples sometimes solid, but in general is formed of open-work, behind which a scroll bearing an inscription is often inserted, as before described. When the light is occupied with only one figure and canopy, the pedestal of the canopy is often represented as if it was resting upon the earth, the space at its foot being covered with flowers and herbage. The pavement on which the figure stands, is in late examples often formed of coloured glass. It is however at all times composed of white or yellow glass, chequered with black; and is shewn in such sharp perspective that the point where it meets the back of

the niche, is often as high as the middle of the body of the figure.

Scrolls bearing passages of Scripture, &c., are to be found at all times of the style, inserted above the head of the figure, when a long space intervenes between it and the groining of the niche^a.

It now remains to notice some of the minuter features of canopies subsequently to the commencement of the fifteenth century. Soon after this period the larger finials and crockets assumed a flatter character, and greater irregularity in their outline than the Decorated. The smaller crockets became in general mere rounded knobs; and the smaller finials, simple prolongations of the sides of the pinnacle, having three trefoils arranged round their base^b. It was usually the practice to shade the pinnacles, and to take out a narrow bright light up the centre of each pinnacle, with other narrow lights diverging from it into the middle of each of the knob-shaped crockets, and there to terminate each light in a round ball-shaped spot. The lights of the smaller windows, and openings of the arches, are generally cross-hatched, and stained yellow. Saddle-bars are sometimes represented across the windows. The shadows in the smaller recesses of the tabernacle-work are usually strengthened with fine lines, flourished irregularly about in a spiral form^c.

In the latter part of the reign of Edward IV., and subse-

^a Plate 16 represents a tracery light canopy of the time of Henry VI. See a very beautiful canopy from the church of All Saints', York, Weale's "Quarterly Papers," part I. plate 1. See also *ib.* plates 3 and 4. See also Lasteyrie, "Histoire de la Peinture sur Verre," plates L and LVIII. See also a late Perpendicular canopy, Lysons' "Gloucestershire," p. cix. A portrait of Prince Arthur, son of Henry VII., kneeling under a canopy, in one of the windows of Great Malvern church, Wor-

cestershire, is represented in Carter's "Ancient Sculpture in England," plate XCIX, and more correctly in the 2nd vol. of Shaw's "Dresses and Decorations of the Middle Ages." See also several late canopies from the east window of Winchester cathedral, Weale's "Quarterly Papers," vol. ii.: and some others from St. Neot's church, Cornwall, in Hedgeland's "St. Neot's."

^b See plate 56.

^c See plate 66.

quently, the Tudor flower was often introduced as a string-course in the head of the canopy, the crocket-knobs of the smaller pinnacles were greatly reduced in size, and the shadows in the smaller recesses of the canopy were often heightened with a number of black dots, instead of the spiral flourishes before mentioned. Towards the close of the fifteenth century, the crockets, finials, and other ornaments of the canopy, assumed in general a bolder appearance, both in their drawing and shading. The finials are more like bunches of leaves, and the crockets more closely resemble those in the architecture of the time.

When a picture, and not merely a single figure, is placed under a canopy, the back part of the niche is generally omitted, and the background of the subject represented in its stead.

The above remarks apply also to the short canopies which do not occupy the whole of a light. They differ from the longer ones only in the shape of their heads, which are less lofty, and flatter in their termination.

The canopies in tracery lights exhibit the same progressive changes in form and arrangement, as those in the lower lights. Their heads, however, generally consist of a simple arch, with a flat-faced crocketed canopy, or gable, above: though when the tracery light is spacious, the head of the canopy is often three-sided, and projects forward as in the larger canopies, which have been already described. The canopy is painted on white glass, and ornamented with the yellow stain, and the whole space beneath the arch up to the figure is generally filled with a flat-coloured diapered ground¹. Sometimes in the later examples this space is also left white, and is merely shaded dark brown.

The above descriptions apply in particular to canopies confined to the limits of a single light; the canopies, how-

¹ See plate 16.

ever, which spread themselves over several lower lights differ from these principally in their increased size and arrangement. The heads of the larger canopies are usually flat-faced, and terminate in an ogee-crocketed top; beneath is a large wide arch. Sometimes, however, the head is three-sided like that of a smaller canopy. White and stained yellow are the prevailing colours of the architecture. In the later examples pot-metals are often introduced into the groining, and sometimes into the bases and capitals of the side pillars, whose shafts are occasionally composed of sprinkled ruby.

The most beautiful canopies of the kind that I have hitherto met with, are in Munich cathedral, and I cannot better illustrate the subject than by immediately attempting to describe them.

Three canopies, placed one above the other, are in one of the windows of the choir,—the second on the south side from the east window,—which consists of five very lofty lower lights, and a short head filled with tracery. Each canopy extends across the whole five lights. The head of the lowest canopy is three-sided, and entirely composed of yellow stained glass, as are also the jambs of the canopy. It is terminated at top with a flat string-course, between which, and the bottom of the next canopy, is a broad interval, having a red ground, panelled with green, into which the yellow spires and pinnacles of the canopy run. The picture beneath the canopy represents an episcopal saint seated in a Gothic apartment, and surrounded with a crowd of ecclesiastics, nobles, and soldiers, brilliantly coloured. The group is brought prominently forward, by keeping the interior of the canopy in shadow,—the shadow being deepest immediately under the hood,—and by using a *retiring* colour—purple—for the walls of the room. The windows of the room are seen in the background, the

vaulting-shafts of the canopy run between them. The roof of the canopy forms the ceiling of the apartment. The ribs of the roof are coloured yellow, and the interstices between them purple. The next canopy has a two-sided projecting front, which as well as the jambs, is entirely coloured white. Its head is terminated with a string-course, between which and the bottom of the next canopy, is an interval of the same width as that above the lower canopy, having a plain red ground, into which the white spires, and pinnacles, and interwoven branches of foliage, which proceed from the front of the canopy, run. The subject of the picture beneath this canopy is the Circumcision, executed in rich colours. The group is brought forward, and disengaged from the architecture in the same way as the last. The background represents the interior of a building, the roof of which is formed, as in the other example, by the vaulting of the canopy. The ribs of the roof are purple, and the ceiling green. The next canopy, like the lowest, has a three-sided front, which as well as its jambs, are composed of yellow stained glass. The head is terminated with a string-course, as in the former canopy, above which are the remains of a blue ground on which the yellow pinnacles &c. of the canopy are represented. The picture beneath is the Birth of Christ, with a landscape background; the rafters of the stable, which are coloured, are very ingeniously contrived to connect the picture with the architecture of the canopy. This group, like the others, stands as prominently forward as the front of the canopy. The effect in this instance is produced by gradually deepening the colour of the blue sky from the horizon upwards to the groined roof of the canopy; and by keeping the roof of the canopy, the rafters of the stable &c., in deep shadow. It is evident that this last canopy is not in its original position, since the

heads of the lights immediately above it are filled with a red ground, on which are represented the white pinnacles and branches of a canopy like that secondly mentioned. In the tracery lights are represented the arms of the donors of the window, and other ornaments, on a blue ground'. A considerable interval remains between the bottom of the lowest canopy, and the sill of the window, sufficiently spacious to have contained another canopy and subject of the same dimensions as those described, besides leaving room for an additional subject underneath it, rather more than half the height of the canopy, and which we may conjecture to have been supplied by the portraits of the donors of the window. The singular character of this window consists in the alternation of the white and yellow canopies, and the mode in which their masses of white and yellow glass separate the different pictures from each other. I ought to mention that the general rich colouring of the pictures is, to a certain extent, carried into the fronts of the canopies by means of a few large coloured figures placed in niches formed in the side jambs of the canopy, and in the tabernacle-work of its projecting front.

The other canopy is in the lower part of a four-lighted window in the north aisle,—the fourth window from the west. It has a flat-faced front, with a low gable, all composed of white glass; above is a broad space, covered with a red ground, on which are represented the upper parts of four pair of white twisted branches and leaves, the lower ends of which are brought down low in front of the gable, forming as it were a leafy skreen, through the interstices of which, the gable itself, and the yellow groining, and blue ceiling beneath it, are shewn. Under this bower is a

* The arms are those of the family of Lewen, one of whose members gave the

window in 1503. Gessert, "*Geschichte der Glasmalerei*," p. 119.

painting of the Annunciation. The figures are represented as within a Gothic apartment, the architecture of which is coloured purple, and as in the other window, forms the basis of the groining and ceiling of the canopy. Through the windows of this apartment a landscape is seen executed in colours, and with a blue sky. The group is brought into strong relief, by the mass of shadow which is thrown behind the figures immediately under the hood of the canopy. This canopy is evidently of the same date as the others, though of smaller size. It would appear from the blue ground beneath it, on which the yellow pinnacles of another canopy are represented, that the general arrangement of this window once resembled that of the other windows.

9. TRACERY LIGHTS.

The general form of tracery lights in this style being elongated, figures became the most ordinary subjects for them.

In the earliest examples the figure is usually placed on a coloured ground, which is diapered, and often surrounded with an ornamented yellow border, which impart somewhat of a Decorated character to the design. The earliest figures are sometimes chiefly formed of pot-metals, but are more commonly executed in white and yellow stained glass.

The canopy was however very soon introduced into tracery lights. The figure is sometimes partially coloured, especially in the earlier examples, but is more frequently of white glass, enriched with the yellow stain, and is separated by a coloured ground from the head, jambs, and pavement of the canopy, which serve as a border to the light, the coloured background to the figure thus being

surrounded with a broad belt of white and yellow glass. This effect is not destroyed even when the head of the canopy is itself on a coloured ground*. The white figure and canopy, with the intermediate space of colour, continued in almost general use until the end of the style.

At all periods of the style, however, figures in tracery lights are to be found represented on a white, or on a quarry ground, or on a coloured ground usually (except in the latest examples) separated from the stone-work by a margin of white glass.

The figures are in general those of saints, cherubim, or angels, the latter often hold shields bearing arms or the emblems of the Passion. In the later examples, kneeling or demi-figures are common, where the light itself is short†.

The triangular and other shaped openings in the tracery, of Perpendicular figure and canopy windows, are often occupied with foliated patterns‡. These in the larger openings are sometimes executed in coloured glass, but more frequently in white and yellow stained glass, the patterns in nearly all cases being rendered conspicuous by filling round them with black paint, leaving a narrow edging of white glass around the light next the stone-work§.

A rose, a lion's head, or a shield of arms, is often introduced in the centre of a quatrefoil, nearly as in a Decorated window. Groups of figures in colours are often to be found in the larger tracery lights of early windows. Sometimes the donors of the window are represented in this position.

* See plate 16.

† See some examples of tracery lights, Lasteyrie, "Histoire de la Peinture sur Verre," plates LXIX, LXIV, LXVI. Lysons' "Gloucestershire," p. cix; the tracery lights are in this plate of an

earlier character than the canopies in the lower lights. Hedgeland's "St. Neot's," plates VII, VIII, X, XI, &c.

‡ See plates 18, 54, 63, and 64.

§ See plate 54.

Tracery lights are often filled with quarry patterns, with or without borders to the light; sometimes a circle with an emblem, or other subject represented on it in white and yellow,—and with or without leaves sprouting outwards from the border of the circle, and painted on the surrounding glass,—is inserted amongst the quarries in the centre of the light. The borders to tracery lights in this style are almost invariably composed of white glass, ornamented with the yellow stain. A coloured border is of very rare occurrence.

In addition to these subjects, white and yellow scrolls, bearing inscriptions on coloured grounds, as well as almost every variety of heraldic device, often occupy narrow tracery lights.

The smaller openings are usually filled with plain pieces of white or coloured glass.

When a general design pervades the lower lights of a window, portions of it often extend into the tracery lights also, to the exclusion of other subjects.

10. HERALDRY.

The heraldry at the commencement of this period preserved its former simplicity, the simple shield only being employed; but it would seem that the use of the helmet, crest and mantling, the crown, the mitre, and the coronet, together with supporters and the motto, is of rather early introduction. The earliest complete achievements that I have met with in this country are late in the reign of Henry VI., after which time they are frequent*.

The shield alone, however, continued in use at all times

* The indent of a shield of arms, surmounted with a helmet, crest, and mantling, remains on the grave-stone of Sir Thomas Welsh, or Walsh, who founded Wanlip church, Leicestershire, in 1393.

* See plate 21. I saw in 1844, some earlier examples than this, in the west window of St. Leonard's church, Frankfort.

of the style, and its form affords a good indication of date. The earliest shields are similar to those at the end of the former period, but the uprightness of the sides is increased, and the shield gradually becomes squarer in its proportions, until at the close of the style it is almost quite square. A great variety of shapes was introduced in the reign of Henry VI., and during the latter part of the style; but it would be impossible to describe them without the aid of numerous plates.

The simple shield is employed in all ways, sometimes in a quatrefoil light surrounded with leaves^a, or suspended from a branch by a strap; sometimes in a panel at the foot of, above, or below a canopy, or in the midst of a lower light of a pattern window, and sometimes by itself, in a tracery light, held by an angel, &c. At the close of the fifteenth century a practice arose of enclosing a shield within a wreath of flowers &c., containing sometimes punning allusions to the bearer's name; the whole being inserted in the midst of a quarry light. Sometimes the shield by itself is introduced into the midst of a quarry light, with or without the addition of a motto on a scroll, and frequently when in this position it is surmounted with a crown, or a mitre, and supported by angels or heraldic beasts.

The more elaborate achievements are sometimes introduced into a quarry light, with the motto written on the scroll beneath, or on the quarries themselves^b, or on a piece of glass placed diagonally across the window^c. Sometimes they are inserted in hollow panels, or covered with a canopy, and introduced into windows in conjunction with other pictures. When the outer lights of a window are

^a See plate 13, which though copied from a late Decorated example, bears a close resemblance to many early Perpen-

dicular arrangements.

^b See plate 20.

^c See Lysons' "Berks," p. 247.

thus filled, the opposite helmets are usually disposed so as to face each other.

Heraldry is also occasionally represented on the garments of the figures, &c. Instances may sometimes be met with of heraldic borders like the Decorated, to windows in this style. Late in the fifteenth century, and subsequently, badges and initial letters, outlined and stained yellow, are to be constantly found on quarries or on small circles of glass, as well as introduced in proper colours in various parts of windows.

CUT 24.



Ockwell's House, Berks

The charges in the shield became more complicated in the later examples, and every means was resorted to in order to represent them in their proper colours: whether by leading in pieces of glass, or by destroying by abrasion the coloured surface of coated glass. In the more ordinary specimens, stained yellow and white glass were often for convenience sake substituted for the proper heraldic colours^d.

CUT 25.



Fulham Palace.

^d See ante, p. 29, note to the Introduction. Cut 24 is taken from an example

of the close of the reign of Henry VI.; it affords a comparison with the Decorated

11. LETTERS.

Inscriptions in this style are composed of Black letters, the capital letters being sometimes Lombardic. The capital letter, however, whether Lombardic or Black, is, like the small letters, painted black, and the only approach to illumination that I have seen, consists in either applying a patch of yellow to it, or painting a small leaf within the compass of the letter, and staining it yellow*. Open characters, stained yellow, are commonly used as initial letters on quarries, &c., but not as capitals to inscriptions. The scrolls on which inscriptions are written are more flowing in this than in the former style. They often have a yellow edging, and the letters are frequently applied to the back, as well as the front of the scroll, so as to avoid breaks in the inscription.

12. MECHANICAL CONSTRUCTION.

The glass is formed into rectangular glazing panels, and attached to the horizontal saddle-bars as in the former style. Great pains were taken to conceal the lead lines as much as possible; the vertical leads are generally thrown into the outlines of the picture, and horizontal leads are almost invariably carried across the work in front of the saddle-bars, by which they are entirely hidden. Thus the necessity of using very large pieces of glass was entirely obviated. I have met with instances of late foreign canopy work leaded together in squares, the vertical divisions not

fish in plate 52. Cut 25 is taken from a specimen of the reign of Henry VII., and affords a comparison with the Decorated fleur-de-lis in cut 17.

* Open letters, stained yellow, appear

however as capitals to Black letter inscriptions, in some of the engravings of the glass from the east window, Winchester cathedral; Weale's "Quarterly Papers," vol. ii.

coinciding with the outlines of the design, but this is of rare occurrence.

. It has been observed in a former part of this work, that painted glass, when found *in situ*, is sometimes useful in helping to determine the date of the architecture of a window, &c. In Perpendicular windows possessing features not peculiar to any particular period of the style, the existence of this test is of especial value, since they are at once proved to be early specimens of the style, if they contain Decorated, or early Perpendicular painted glass, in such positions as will lead to the inference that they were originally glazed with it. Of this an instance is afforded by the great east window of Gloucester cathedral, which though of Perpendicular architecture, is filled with late but pure Decorated glass. It is easy to multiply examples. I shall content myself with mentioning the following. A small two-lighted Perpendicular window on the south side of the chancel of Tredington church, Gloucestershire, contains some good late Decorated glass in its principal tracery light. The Perpendicular east window of the south aisle of Southfleet church, and a Perpendicular window on the south side of the chancel of Eynesford church, Kent, respectively contain fragments of late Decorated, or early Perpendicular painted glass. And to the best of my recollection, there are some small pieces of early Perpendicular, if not of late Decorated glass, in the spandrels of the lower tier of lights of the west window of Tewkesbury abbey church. An opinion seems to be gaining ground amongst students of architecture, that some of the most distinguishing features of the Perpendicular style were introduced at an earlier period than was at one time supposed: and certainly the existence of Decorated glass in Perpendicular windows, tends to a similar conclusion.

SECTION IV.

THE CINQUE CENTO STYLE.

THE Cinque Cento style may be said to have lasted about fifty years, viz. from the beginning of the sixteenth century, until the introduction of the "mosaic enamel mode" of glass painting; about the middle of the sixteenth century.

For a short time, therefore, the Perpendicular and Cinque Cento styles were concurrent. And if it were not for the peculiar character of the Cinque Cento ornamental details it would be a matter of considerable difficulty to distinguish the Perpendicular glass paintings of the first thirty years of the sixteenth century, from the contemporaneous Cinque Cento glass paintings. These examples of the two styles, especially those of the early part of the sixteenth century, often bear a considerable resemblance to each other, not only in their general arrangements, but sometimes even in the drawing of the figures: there may also be remarked in these paintings the same gradual change from comparative poverty, to richness of colour; and from hardness and flatness, to softness and roundness of effect. The Cinque Cento style reached its perfection between the years 1525 and 1535, a period which may be termed the golden age of glass painting. During this time, Cinque Cento glass paintings display in general the most gorgeous effects of colour, and the greatest contrasts of light and shade that have hitherto been attained in painted glass without sacrificing the transparency of the material, whilst they often possess at the same time considerable merit both in their drawing and composition. Cinque Cento glass paintings executed soon after 1535, begin to lose their transparency and brilliancy, and to become black and opaque in their deeper shadows, an evil which increased as the style advanced, and was doubtless occasioned by the anxiety of the artists to give greater force and effect to their pictures, by imitating the deep shadows of oil paintings. In point of richness of colour, design, and composition, the latest Cinque Cento glass paintings are however not inferior to the earlier specimens.

We may perceive in the superior pictorial qualities of the glass paintings of the first half of the sixteenth century,

as compared with the more ancient examples, the influence which a progress in one branch of art usually exerts on others. The close of the fifteenth, and beginning of the sixteenth century, is almost universally admitted to have been the period of the highest developement of modern fresco, and oil colour painting. Glass painting did not then indeed attain perfection, but it reached a degree of excellence during the first thirty or forty years of the sixteenth century, which has not only never since been equalled, but also affords a satisfactory ground for the belief, that if glass painting cannot boast of possessing examples as full of artistic merit as the works of the great masters, this deficiency is attributable not to any inherent incapacity in this system of painting for a display of high art, but simply to the want of skill in those who have hitherto practised it.

Cinque Cento glass paintings partake less of the character of mosaics, and more of the nature of finished pictures than Gothic glass paintings. This picturesqueness was produced without resorting to any other expedients than those afforded by the mosaic system of glass painting. The limited scale of colour common to that system, was considerably extended early in the sixteenth century, by the introduction of a great many new tints of coloured glass, as well as by the single and double application of the yellow stain to them, and white glass. The varied and harmonious colouring of a Cinque Cento glass painting is however the result not merely of a skilful disposition of individual tints, but of taking advantage of the accidental variations of colour in the same sheet of glass, so as to make the light parts of the glass coincide, as far as possible, with the lights of the picture, and its dark parts with the shadows. None I am persuaded ever understood the principles of colouring as applied to glass paintings, more thoroughly than the Cinque Cento artists; their works, even if regarded as mere

“maps” of colour, would still be picturesque. Some great principle of colouring may generally be remarked in them, tending to counteract the natural spottiness of a glass painting. The eye is not distracted by capricious contrasts, but by means of well-arranged leading tints is quietly conducted over the whole design. In point of execution, the stipple mode of shading was that principally employed throughout the Cinque Cento style; smear shading being however a good deal used in architectural ornamental work. The stipple shading became much coarser in its grain as the style advanced, which enabled the artists by this means considerably to increase the depth of the shadows without destroying the transparency of the painting. Soon after the year 1530, a practice was introduced of heightening the deeper shadows with broad smear hatches of paint, left unstippled, the cause of that opacity in the later Cinque Cento glass paintings, which has before been alluded to. The enamel brown used in the earlier paintings, is of a cold tone; towards 1520, however, it acquired a fine warm tint, by which a considerable degree of richness is imparted to the work. The chief superiority, however, of the Cinque Cento glass paintings over the Gothic, consists in the extraordinary distinctness and relief of the picture; partly caused, it is true, by well-defined outlines, and contrast of colour, but more effectually by powerful and skilful contrasts of light and shade. The artifice resorted to may be most easily detected in those Cinque Cento glass paintings in which the picture is represented as seen beneath an archway. The front face of the arch and its abutments, &c., forms a mass of strong light, and is consequently brought prominently forward. The soffit and sides of the archway are however kept in deep shadow. The group of figures stands just within the threshold of the archway, and is a very prominent object, on account of its forward posi-

tion, its vivid colouring, and strong lights and shadows. In the distance is represented a landscape, delicately painted on light blue glass, and the space between the horizon and the archway, is filled with a very clear light blue or grey sky. This sky serves as a background to the heads and upper portion of the bodies of the figures of the group, and by its tint and transparency, throws forward the darkly-shaded archway, and the group in a most surprising manner, and at the same time gives great apparent distance to the background. In this way are produced the greatest effects of atmosphere that the art of glass painting is capable of. The same method of ensuring distinctness may be traced in all Cinque Cento work. It may be observed in figure and canopy windows, and in glass paintings where the whole of the window is covered by the picture. The effect produced is, however, never so striking as when the picture is represented as seen through, or under, an archway.

The principle of keeping the picture separate and distinct from the mere ornamental part of the design, is fully carried out in the Cinque Cento style. The architectural work, which is principally composed of white and yellow stained glass, is in general made to form a frame-work, or setting to the picture, with which it neither interferes, nor intermingles. In some compositions indeed, the pictorial part is closely interwoven with the ornamental part, but when this occurs, it may usually be accounted for by the peculiar nature of the subject, as a Jesse for instance.

The ornaments of the Cinque Cento style of glass painting resemble those of the Italian architecture of the sixteenth century, to which the term "Cinque Cento" is ordinarily applied. These are principally derived from the ancient Roman architectural details, such as friezes, arabesques, and the like. Some Roman ornaments are directly copied in Cinque Cento work; in general, how-

ever, there is a playfulness in Cinque Cento decorations which of itself sufficiently distinguishes them from the classical. They likewise frequently exhibit the costumes, and armour of the sixteenth century. The drawing of the principal figures and draperies in Cinque Cento glass paintings is in general more nearly allied to the Italian than to the German manner. Some figures are extremely grand and severe; and they are almost all far more correctly designed and executed than the Gothic. On the whole, however, the Cinque Cento style must be considered more ornamental, and less severe in its character, than the Perpendicular style: I am of course speaking of it as it appears in existing specimens, for there is nothing in the style itself which is opposed to severity or grandeur.

In their general arrangements Cinque Cento glass paintings usually exhibit a remarkable unity of design, which is accomplished sometimes by means of the architectural work which environs the different pictures; sometimes by the manner in which the colouring of several distinct pictures brought into juxtaposition, is managed, so as to produce the effect of one connected work.

The figure and canopy window is a common Cinque Cento arrangement. Sometimes each figure is placed under a separate canopy; but more commonly they are all covered by one large canopy, extending across the window. In either case a panel containing a coat of arms, or a picture, is often inserted beneath, or even above the canopy, the tracery lights being filled with angels, emblems, heraldry, or other devices¹.

In picture windows the arrangement sometimes consists

¹ See representations of figure and canopy windows, Lasteyrie, "*Hist. de la Peinture sur Verre*," plate LXXXII;

and Lettu, "*Description de l'Eglise Métropolitaine du Diocèse d'Auch*," Nos. 7, 8, 21, 22.

in entirely filling the lower lights, and occasionally the tracery lights also, with one subject, unaccompanied with any canopy or ornamental work. Sometimes in occupying the lower lights with one general canopy, or open skreen-work, which includes one or more distinct pictures: the tracery lights being filled with independent subjects. Sometimes the central part of the window is occupied with one large picture with or without an architectural framework, the two outer lower lights being each filled with a figure and canopy. In other windows, especially those consisting of five or more lower lights, the centre light is filled with a figure and canopy, and the outer lights on either side with a large picture. The tracery lights being in all these instances adorned with other pictures^c. Sometimes when a window consists of three lower lights, a figure and canopy is placed in the centre light, and all the rest of the window is filled with heraldry, or with plain white glass leaded together in geometrical patterns, or, in Germany, with round glazing. Sometimes an arrangement like the Decorated is resorted to, one general canopy, or several canopies, including either a large picture, or single figures, being carried like a belt across the middle of the lower lights, the space above or below the belt being occupied with white, or round glass, as before mentioned. The variety of arrangements in works of this period is however very great, since amongst them may be reckoned, in addition to many original arrangements, almost every combination which has hitherto been noticed in the examination of the former styles: it is therefore impossible to do more than just glance at some of the most ordinary, leaving the rest to be ascertained by actual observation^d.

^c See plate 22. See also Lasteyrie, "Histoire de la Peinture sur Verre," plates LXIV, LXVI, LXXVI, LXXVII, and LXXXI.

^d See the engravings of the windows of St. Jacques church, Liège, in Weale's "Divers Works of Early Masters in Christian Decoration."

In the Wheel windows of this period, the colours are in general arranged so as to produce the effect of a star, or rainbow, as the case may be. In the centre opening there generally is a demi-figure or other picture; the openings immediately round the centre are filled with yellow rays; and the larger outer lights with demi-angels, or cherubs, all executed in colours and placed with their heads towards the circumference of the circle; the smaller openings being filled with patterns, or plain pieces of glass. In some instances all the openings except the central one are filled with ornamental patterns¹.

The Jesse windows of this period, are in general extremely rich and fanciful. The vine generally extends itself in graceful curves over the whole of a window, it is seldom confined within the limits of a single light. The figures stand upon, or sit on foliated stools growing out of its branches. The whole design is sometimes represented on a coloured, sometimes on a white ground. In the former case the principal branches are generally white, the leaves and stools being variously coloured, in the latter the vine is usually stained yellow².

The painted glass in the windows of the apsidal choir of St. Jacques church, Liège, though inferior both in extent and subject to many other examples, may safely be pronounced to be one of the most splendid specimens of the Cinque Cento style, and merits particular attention on account of the excellence of its execution, and brilliancy of its effect. Its goodness as a specimen of glass painting will be the more readily appreciated by the student since it has lately been repaired, and restored to its original lustre by a care-

¹ See Lasteyrie, "Histoire de la Peinture sur Verre," plate LXXII: see also Lettu, "Description de l'Eglise Métropolitaine du Diocèse d'Auch,"

Nos. 5, and 24.

² See a specimen of a Cinque Cento Jesse, Lasteyrie, "Hist. de la Peinture sur Verre," plate LXXIV.

ful and judicious cleaning. Its principal subject is the family alliances of the counts of Horn.

There are five lofty windows in the apse of St. Jacques church, each having its lower lights divided by a transom into two tiers of three lights apiece. The three lights in the upper tier of the centre window, are occupied with a large picture, (the Crucifixion,) and the canopy under which it is placed: the lower tier of lights is filled with another large picture, comprising two subjects, (Abraham offering Isaac, and the lifting up of the brazen serpent in the wilderness,) and its canopy.

Both these pictures exhibit good drawing and grouping in the figures, brilliant and harmonious colouring, and a depth of shadow which could scarcely have been increased without sacrificing the transparency of the glass. Each is furnished with a landscape background, and a light blue sky above, reaching to the arch of the canopy, *through* which the picture appears to be seen. A most luminous effect is produced by this sky, contrasted as it is with the dark soffit of the archway, and the powerful execution of the group of figures beneath. The sky in the lower picture is represented clear and serene, gradually deepening a little from the horizon upwards; that in the upper picture is slightly clouded towards the top, doubtless to indicate the supernatural darkness of the Crucifixion.

The canopies, which are thoroughly Cinque Cento in design and details, are principally composed of white and yellow stained glass, and by their mass effectually serve as a *setting* to the pictures. Their ornamental character is increased by the stiff coloured grounds on which their heads are placed; that of the upper canopy being deep blue, and that of the lower bright red.

In the tracery lights of this window are two heads, the one intended for God the Father, the other for Christ, as

well as representations of the Holy Ghost, and two cherubs; these subjects are all executed in white and yellow stained glass, and placed on bright red grounds.

Each of the remaining four windows has, like the centre window, its lower tier of lights occupied with a large picture and canopy, the subjects however being portraits of members of the Horn family, kneeling and attended by their patron saints, and angels holding their armorial bearings. The glass in the upper tiers of lights differs much in its arrangement from that in the centre window. A single figure and canopy partly occupies the central light, and a small portion of each of the side lights, in the upper tier of each of these windows, the remainder of the lights being filled with shields of arms backed with plain white glass: a more perfect and beautiful display of heraldry than this can hardly be conceived. Many of the arms are furnished with helmets and mantlings, and the white glass not being leaded together in any particular pattern, but principally in horizontal lines, hidden by the saddle-bars, offers nothing to distract the eye from a contemplation of the bright bearings, and the varied and elegant forms of the lambrequins and crests. The single figures in the central light of the upper tier, serve to keep up the interest of the general composition; while the small amount of colour presented by them and the heraldry together, when compared with that of the painting of the Crucifixion, serves to preserve the predominance of the central window. The tracery lights of the four side windows, contain angels and scrolls, in white and stained yellow glass on coloured grounds. One of the scrolls bears date 1525.

I must not omit to mention two other windows, of singular shape, on either side of the choir next the nave of St. Jacques. In the autumns of 1843, and 1844, the north window alone contained painted glass, the contents of the

south window being, as I was informed, in the cleaner's hands. The north window is divided into two grand compartments by an immense mullion, which runs up the middle of the window and branches off at top like a Y. Each compartment has four lower lights, and a head of Flamboyant tracery. The three lower lights of each compartment next to the large centre mullion, are with the exception of a space at bottom, equal in width to the breadth of the outer light, occupied with paintings representing members of the Horn family,—kneeling and attended by their patron saints,—under canopies of the same character as those in the apsidal windows. The heads of these canopies are on coloured grounds. The picture is painted on precisely the same principle, in respect of contrasts of colour, and of light and shade, as the pictures in the east window. The tracery lights forming the central portion of the head of each compartment, and which, though not exactly over the tops of the three lower lights, immediately adjoin them, are filled with angels, scrolls, and other subjects, principally executed in white and yellow stained glass, and placed on coloured grounds. White glass, however, forms the ground not only of the exterior lower lights of each compartment, and of the space beneath the pictures in the other lights, but also of all the exterior tracery lights in the head of the compartment. These tracery lights are occupied with angels, letters, &c., executed in colours; and the exterior lower lights, as well as the space below the pictures, with heraldry, richly coloured, principally consisting of shields of arms with helmets and mantlings. The effect of this arrangement is completely to *cut out*, and surround with white, the coloured central portion of the window, and to make it harmonize with the general appearance of the windows in the apse. The space above the fork of the large centre

mullion is occupied with a representation of the coronation of the Virgin, in colours, surrounded by a coloured rainbow, composed of pink, red, and blue rows of cherubim¹.

A remarkably fine Cinque Cento general arrangement is afforded by the four windows of the chapel of the Miraculous Sacrament, which is on the north side of the choir of Brussels cathedral. Each of these windows has five long lower lights and a head of tracery. The lower lights of each window are filled with a grand Cinque Cento architectural design, terminating at top like a triumphal arch, but comprising a double tier of open arches separated by a broad frieze, and principally composed of white and yellow stained glass. In these glass paintings the principle of producing distinctness, and atmospheric effect, by strong contrasts of colour and of light and shade, is carried out in the boldest and most complete manner. Under, and sometimes partly in front of, the upper tier of arches in each window is depicted in rich colours a group of figures forming a portion of the legend of the miracle; the space below the lower tier of arches being occupied with the kneeling portraits of the donors of the window and their attendant patron saints. The front of the whole screen presents a mass of light; but the soffits and sides of all the archways are kept in deep shadow. A bright grey or azure-coloured sky is, in every case I believe, introduced in the distance; filling up the remainder of the space beneath the archway, and serving as a background to some of the figures of the group. The ornamental architectural work serves not only (as at Liège) as a *setting* and relief to the pictures, but by means of its connected design, to produce a general unity

¹ The windows of St Jacques church have been engraved in a recent publication by Weale, entitled "Divers Works of Early Masters in Christian Decoration;" these plates are exceedingly use-

ful as giving the arrangement, the colouring, and general design of the glass, they however by no means convey an adequate idea of the *effect* of the glass.

of effect. The space above the architectural elevation, and also the tracery head of each window, is filled with plain white glass in quarries, but this is not original. Two of the windows bear date 1546, and the two others 1547. In mere point of execution these glass paintings are to a certain extent inferior to those at Liége, since there is a certain degree of opacity in their deeper shadows, and a consequent diminution of transparency in this portion of the picture.

The windows of Auch cathedral, in the south of France, are not only extremely valuable as collectively shewing the general arrangement of the glass throughout an entire building, but as affording a satisfactory proof of the ease with which in the Cinque Cento style, unity of design in any particular window may be accomplished by a judicious employment of architectural and ornamental details, although no visible connexion exists between the principal subjects of the composition themselves. The richly coloured glass paintings are confined to the windows of the chapels which lie eastward of the transept, and to the circular windows at the west end of the nave, and the northern and southern extremities of the transept, the rest of the edifice being glazed with mere pattern windows, possessing but little colour. Some of the pattern windows are of the seventeenth century, but others are of the same date as the picture windows in the chapels, which appear from an inscription on one of them, to have been finished in 1513.

The general character of the latter windows may be gathered from plate 22, which is a reduced copy of the window numbered 23, in M. Lettu's excellent work on Auch cathedral, from which I have principally derived my information on the subject^m.

^m A representation of this same window is given in Lasteyrie, "*Hist. de la Peinture sur Verre*," plate LXXXI.

Its colouring is extremely rich and brilliant.

In all except the three windows of the easternmost apsidal chapel, the principal subject has a smaller subject beneath it, by which means an uniformity of level is preserved throughout the whole of these compositions; the three windows of the easternmost chapel being somewhat shorter than the others. The principal subjects of the window represented in plate 22, the incredulity of St. Thomas, and Christ appearing to Mary Magdalene, form together one connected picture. In the great majority of the other windows, however, the principal subject consists of a row of three or four independent figures, according to the number of the lower lights, each light containing a single figure. These figures are of prophets, patriarchs, sybils and apostles, and their relative positions can for the most part be accounted for only by reference to the legends and doctrines of the Church. In some windows these figures are treated as independent, each being covered with a separate canopy; in general, however, they either stand in front of a grand architectural elevation extending across the window, or in a connected row of niches. In some windows the unity of the composition is further assisted by the introduction of a curtain behind the figures, supported by angels, as in plate 22. The Crucifixion in the east window, and the fall of Adam in one of the side windows, are treated as at Liège and Brussels, as pictures seen through an archway. The tracery lights in all these windows are filled, as in plate 22, with figures, heraldry, ornaments, &c.

The circular window at the west end of the nave has its eye, or centre light, filled with a half-figure of the Virgin Mary, the lights which immediately diverge from the centre are filled with flames of fire, and the outer lights principally with angels and cherubs. The two other circular windows are nearly alike. One contains a demi-figure of St. Peter, and the other a demi-figure of St. Paul in its centre light,

all the radiating lights being occupied solely with foliated ornaments.

The pattern windows have their tracery heads full of ornaments and heraldry, and their lower lights are enriched with a border, and filled with plain quarries. As all the picture windows and some of the pattern windows have been engraved by M. Lettu, I must refer the reader to his work for further particulars on the subject.

King's chapel, Cambridge, affords another example of a general arrangement of windows throughout an entire building. With the exception of the west window, all the principal windows of this edifice are adorned with pictures on glass, which from the original contracts with the glaziers, still in existence, appear to have been finished about 1531.

The east window contains in its lower lights six distinct subjects, viz. three in the upper tier, and three in the lower tier of lights, each picture entirely filling three lights, and not being enclosed within any ornamental frame-work, but simply separated from the others by the mullions and transom of the window. These pictures are very fully and richly coloured. The tracery head of the window is entirely occupied with royal cognizances, and initial letters, &c., executed in white and coloured glass, and placed on a blue ground of much deeper tint than the blue used in other parts of the window^a.

The side windows each consist of ten lower lights, disposed in two tiers, and an obtuse head of tracery. The central light of each tier contains two figures richly coloured,

^a A print of the east window of King's chapel, by the late J. K. Baldry, was published in 1809; it is a faithful representation of the drawing of the glass, but conveys but little idea of its colouring or general effect. It is to be regretted that Mr. Baldry did not fulfil his original intention of engraving all the side windows

in a similar manner. I have a sort of suspicion that the glass in the tracery lights of these windows is a little earlier than that in the lower lights. The initials H. E. in the tracery lights of the east window seem to have reference to Henry VII. and his queen, Elizabeth of York.

placed one above the other, and each covered with a Cinque Cento canopy principally composed of white and yellow stained glass. On either side of the centre light is a distinct subject, occupying the two outer lights of each tier. These pictures are all richly coloured, and except in one window are not surrounded with any architectural frame-work. The tracery lights are filled with heraldic bearings and cognizances placed on coloured grounds, deep blue being the prevailing ground colour. In point of execution, these windows appear weak in comparison with those at Liège, there is a want of depth in the shadows, and consequent want of relief in the picture; and the grain of the shading is too fine, which makes the shadows rather hard. The mass of deep blue in the tracery lights produces a rather heavy effect. Still these windows will always rank deservedly high as glass paintings; taken collectively they form indeed the most important specimen of the Cinque Cento style in this country. Some of the windows have been lately cleaned, and are in my opinion greatly improved by the operation*. A few of the windows which separate the little side chapels from the main building, preserve portions of their original glazing. Some of it is in the same style as that in the large windows, the rest is rather more Gothic in character. These windows do not appear to have been richly coloured. Many of the figures in the tracery lights are executed in colours, and placed on ornamented quarry grounds.

The windows of St. Peter's church, Cologne, demand attention, since they afford combinations of very beautiful Cinque Cento picture glass paintings, and patterns princi-

* A description of the subjects represented in these windows is given in the "Cambridge Guide," Cambridge, 1831. It appears from this authority, that in April, 1527, a contract was made for

eighteen windows, to be completed within four years: and that another contract for four other windows, to be finished in three years, was made in May, 1828.

pally composed of round glass. The central portion of the three lower lights of each of the three eastern windows, is occupied with a very considerable mass of painted glass, consisting of one general subject above, and several smaller subjects beneath. Thus in the centre windows, the upper subject is the Crucifixion, below which the portraits and arms of the donors are represented. The remaining portions of the lower lights are filled with round glass, in which stars of colour are introduced, as before described. The tracery lights either contain arms, or are surrounded with an ornamented border, executed in white and yellow glass, and filled up with round glass.

A similar arrangement prevails in most of the other windows of this edifice; in some only part of the central lower light, in others the middle portion of all the lower lights is filled with painted glass, the rest of the openings as well as the tracery-head of the window being glazed with round glass. Some of these windows bear date 1528, 1530. The pictures they contain, considered as glass paintings, are of the highest excellence, being exceedingly brilliant, without displaying any timidity in their shading, which is at once clear and effective. The effectiveness of round glass as an adjunct to painted glass is here fully developed: it appears to harmonize with it both in colour and form, far better than ornamented quarries.

Want of room prevents my noticing in detail many other valuable examples of Cinque Cento glass painting. I must not however forbear to mention the churches of St. Patrice, and St. Vincent, at Rouen, both of which contain many beautiful specimens^p; the church of St. Martin, at Liège, whose seven easternmost windows (some of which bear

^p Engravings of some of the glass in these churches, and also in that of St. Godard at Rouen, are given in

Langlois, "*Essai Historique et descriptif sur la Peinture sur Verre*," 8vo. Rouen, 1832, plates 3, 4, 5, 6 and 7.

date 1527) exhibit a remarkable combination of the most splendid heraldic compositions and sacred subjects; and especially the choir of Lichfield cathedral, the windows of which are filled with glass brought from the diocese of Liège, and strongly resembling that of St. Jacques church in its general character and execution¹. The Lichfield glass is dated 1534, 1535, 1538, and 1539, and though the relative arrangement of the different pictures has not been preserved, by which the general effect of the work is lessened, they are individually worthy of close attention by every true admirer of painted glass. As glass paintings they are indeed finer than those at St. Jacques church, Liège. They are most effective specimens of the art; the principle of contrasting colour and light and shade, and using the architectural frame-work as a relief to the picture, being fully displayed in them. The clearstory windows of the choir of Brussels cathedral are also very fine specimens of the Cinque Cento period; they appear to be coeval with the great west window of that edifice dated 1528, and which with the exception of its tracery lights is entirely filled with a representation of the Day of Judgment, a work which displays the capability of glass painting for such subjects². Some good Cinque Cento glass paintings, portions of larger works, and as I think, of the Flemish school, may be seen in the windows of Ashted and Gatton churches, Surrey. I cannot conclude these remarks

¹ A description of the Lichfield glass is given in a little work entitled "A Short Account of Lichfield Cathedral," Lichfield, 1843. 5th ed. The portrait of Cardinal de la Marck in one of the north windows of the choir, is really a wonderful performance as regards colouring and execution, and sufficiently proves the pictorial excellence to which a glass painting may attain. The glass belonged to the dissolved abbey of Herkenrode, in the diocese of Liège. It was obtained by

the dean and chapter of Lichfield in 1802, through the assistance of Sir Brooke Boothby, who travelling through the bishopric of Liège, then in the occupation of the French, purchased it for the trifling sum of £200.

² According to M. le Vieil, the west window of Brussels cathedral was painted by James Floris, otherwise Jacques de Vriendt, brother of the well known Francis Floris, "the Flemish Raphael." "L'art de la Peinture sur Verre," p. 42.

without a reference to the east window of St. Margaret's church, Westminster, which though at present much begrimed with London smoke and soot, may be cited as an example of the pictorial excellence attainable in a glass painting without any violation of the fundamental rules and conditions of the art, and as affording a practical refutation of the notion that glass paintings must necessarily be confined to mere mosaics possessing hardly any other merit than that which results from an assemblage of splendid and dazzling colours*.

I now proceed to examine Cinque Cento glass paintings in detail, conducting the investigation in the following order.

1. TEXTURE AND COLOUR OF THE GLASS.

The glass used in Cinque Cento glass paintings is identical in texture with that employed in the Perpendicular glass paintings of the sixteenth century, and it also resembles it in the general lightness and gaiety of its colours. Many new tints, especially of pink and purple, were intro-

* A very indifferent print of this window was published in the "*Vetusta Monumenta*," in 1768. The Society of Antiquaries there state, that this window was originally intended as a present by the magistrates of Dort, in Holland, to King Henry VII.; that it remained at Waltham Abbey till the dissolution, when it was removed to New Hall, Essex; that it afterwards passed by sale to Mr. Conyers, of Copt Hall, Essex, from whence the inhabitants of St. Margaret's, Westminster, purchased it in 1758, for 400 guineas.

That the window was however painted for Henry VIII. and not for his father, appears I think pretty clearly from the introduction of the pomegranate, the badge of Henry VIII.'s first wife Catharine of Arragon, in the upper part of the window, and also from the figure of

St. Catharine which is placed over the kneeling effigy of the queen. The style of the work itself is of the time of Henry VIII. It is not likely that it should have been painted after the king's scruples respecting the validity of his marriage had arisen, but I think, judging by the analogy of other examples, that it is as late as 1526 or thereabouts. In its general character it closely resembles a window containing the portraits of John Draeck (who died 28th Nov., 1528) and Barbara Colibraut, his wife, (who died 28th Sept., 1538,) in the north aisle of the nave of St. Jacques church, Antwerp.

The harmonious arrangement of the colouring of the Westminster window is worthy of attention. It is the most beautiful work in this respect that I am acquainted with.

duced during the Cinque Cento period, as well as a deep blue of a purple tint, which last was much used in the draperies, &c., of late works. A very light blue or rather grey glass, was constantly employed to represent the azure of the firmament, and also very extensively in landscapes, and ornamental work, where it is often changed to a light green, or even a deep yellow by staining. "Sprinkled ruby" and many kinds of irregularly coloured ruby may be frequently observed in Cinque Cento glass paintings. The white glass is apparently colourless, but on close inspection it will be found to retain the light yellow tinge which has been already remarked in reference to the late Perpendicular white glass. Flesh-coloured glass is uncommon, white glass tinted with a red enamel like China red being generally used instead of it. Those specimens of flesh-coloured glass that I have met with are very light in colour.

Many kinds of coated glass besides ruby, were used during this style, and the abrading process was frequently exercised on them.

It is to the profuse employment of the yellow stain, and the rich and varied hues it assumes under different degrees of heat, that the gorgeous effect of Cinque Cento glass paintings is in great measure attributable. The yellow thus produced is usually of a fine deep golden colour, it very often inclines to a deep orange, it is seldom of a pale lemon tint.

A practice was often resorted to of *double staining* the glass, that is, applying the stain twice over, whenever increased depth, or variety of colour was required. By this means yellow grounds were often ornamented with a pattern executed on them in a still deeper shade of yellow. The stain was sometimes applied to yellow pot-metal glass, and frequently to blue and also to ruby and purple glass.

Blue glass was often subjected to the process of double staining.

2. MODE OF EXECUTION.

Dark outlines were constantly employed in the figures of this period, and great effects were often produced by them, but being in general used to assist deep shadows, their presence is seldom remarked. In ornamental work the chief expression is given by outlines. They are always full and juicy, and vary much in depth.

The shadows were generally produced by the stipple method, but smear shading was much employed in ornamental work, especially late in the style.

In depth and texture the stipple shadows exactly resemble those used in Perpendicular glass paintings of the sixteenth century, and which have been already described. In the earlier Cinque Cento paintings the shadows often are weak and fine in their grain, but as the style advanced they became gradually darker, and much more coarsely and boldly stippled. It was the common practice during the first thirty years of the sixteenth century to heighten the shadows with a hatching of thin dark lines, which increased their depth without diminishing their transparency; but soon afterwards broad dabs of unstippled paint were used instead of the thin lines to strengthen the shadows.

It is to this circumstance that the dulness and opacity of the later Cinque Cento glass paintings are attributable, for the stippled ground of the shadow itself always preserved its transparency, the coarseness of its grain in general increasing with the thickness of the coat of colour employed. The introduction of the warm brown enamel instead of the colder tint formerly used for shading, seems to have taken place contemporaneously both in this and the Perpendicular

style. It greatly tended to increase the richness of the painting^t.

A light red enamel colour resembling China red was as before mentioned frequently employed as a flesh-colour on the naked parts of figures when executed on white glass. It was usually applied like a wash to the back of the sheet, and was not suffered to extend over the drapery or hair. In some cases it was used as a stipple shadow on flesh-coloured glass, and sometimes as a colour for the lips and cheeks. It is the only enamel colour used in Cinque Cento glass paintings besides enamel brown.

Diaper patterns were very commonly used throughout the style, they are often of very bold design, especially in tapestry grounds.

3. FIGURES.

The glass painters of this period certainly surpassed their predecessors, and their successors likewise, in their technical knowledge of the human figure. Its form and proportions are in general well preserved in their works, and their pictures are often as well executed as designed, a matter of very rare occurrence in glass painting.

There are however many degrees of merit in the works of even the best time of the Cinque Cento style. In some, the figures, besides being exquisitely finished, are simple, dignified, and full of character: in others, the figures, though by no means badly drawn, are placed in whimsical and extravagant attitudes with their draperies fluttering about in a capricious and unnatural manner, and are totally devoid of all dignity, or propriety of expression. Such figures sometimes affectedly gather up their outer garments with their hands in order more completely to

^t See plate 72.

exhibit the rich dresses which are underneath. In technical completeness, however, the Cinque Cento figures are always superior to the Perpendicular, though they may sometimes be inferior to them in dignity. Naked figures of cupids, genii, &c., are very commonly introduced into Cinque Cento ornamental work, a practice borrowed from the antique^a.

The heads of the larger figures, from their high finish, and flatness of effect, bear a considerable resemblance to those in the oil paintings of the close of the fifteenth and early part of the sixteenth century. Some of the portraits possess much of the character of Holbein's pictures.

The features are represented more by well-defined lights and shadows than by actual outlines, though these were much used for the sake of giving distinctness and force of expression. The faces and other naked parts are executed as before mentioned either on light pink pot-metal glass, or, more commonly, on white glass tinted with a red enamel: this colour is often used to heighten the colour of the lips, and sometimes that of the cheeks, particularly in portraits^x.

The hair and beards of ideal personages, saints, or angels, are most commonly stained yellow, but in portraits are generally coloured a rich brown, independently of the shading. Distant figures in a picture are often entirely composed, faces and all, of light blue glass, shaded with warm brown, or the red enamel before mentioned: their hair and parts of their dress being in general stained yellow.

^a See plates 25 and 22. See also a variety to Cinque Cento figures, in the plates to Lettu's "Description de l'Eglise Métropolitaine du Diocèse d'Auch," also in Langlois, "Essai Historique et Descriptif sur la Peinture sur Verre," plates 3, 4, 5, 6 and 7. In Lasteyrie, "Hist. de la Peinture sur Verre," plates LXIV, LXVI, LVII, LXIX, LXX, LXXI, LXXIII, LXXVI, LXXXII,

&c. Also in Weale's "Divers Works of Early Masters in Christian Decoration," plates of the windows of St. Jacques church, Liège, and in Baldry's engraving of the east window of King's chapel, Cambridge.

^x The head in plate 71 belongs to the period between 1520 and 1530. That in plate 72 is perhaps a little later.

The costumes of this period are, in general, exceedingly rich and splendid from their colouring, and from the profusion of diapers, borders, and other ornaments which are lavished upon them. The garments are mostly lined with a different colour, and are disposed so as to shew it off as much as possible.

The ecclesiastical dress differs from that of the close of the former style, only in its ornaments, which are of Cinque Cento character.

In portraits, the female head-dress is in shape like that in the pictures of Anne Boleyn, and of the other queens of Henry VIII., being richly ornamented with gold and pearls, and confining the hair beneath it. In the pictures of female saints, sybils, and ideal personages, the hair, even when this head-dress is adopted, is in general allowed to descend in long curls upon the shoulders. The most peculiar dress of this period, and which is appropriated both to saints, holy and ideal personages, and private individuals, consists of a garment fitting tight to the body, and having a short skirt reaching rather below the knees, split up at the sides, sometimes as high as the hips, and fringed like a tunic. The whole dress, and especially its body and sleeves, is usually richly ornamented, and embroidered. Beneath it is a long garment descending to the feet.

To this costume a cloak is often added, upon which the armorial bearings of the wearer are sometimes represented.

Another very common dress consists of a tight garment like that before mentioned, but with long skirts reaching down to the ground, to which a cloak is sometimes added.

The military dress in portraits consists of plate armour highly gilt and embossed, like that actually worn at this period, with arms depicted on the tabard. A more fanciful costume, consisting of a mixture of the dress of a Roman

soldier, and of a sixteenth century pikeman, being often appropriated to ideal personages.

The civil costume consists usually of a long robe and cloak, but the utmost variety prevails in those of ideal characters, saints, prophets, and angels. In the representations of the latter the neck is usually exposed, the amice, of such universal occurrence in medieval paintings, being wholly omitted. Indeed in the drapery in which saints and angels are apparelled, there is often a close approach to the classical⁷.

4. ORNAMENTS.

The Cinque Cento ornaments are identical with those employed by Raphael and other great Italian masters of the sixteenth century in the decoration of their works. They are borrowed from the Roman arabesques, which they almost surpass in richness and varied fancy, and like them impart a peculiar liveliness and freedom of effect to whatever subject they are applied.

A complete knowledge of their forms can only be obtained by the eye, it is impossible fully to describe them.

They consist in general of foliages and flowers entwined together, and intermixed with little genii, cupids, or angels, which sometimes sprout from the centre of a flower; of vases richly fluted or embossed, candelabra, fruit, wreaths, festoons, cords, tassels, and the like. The foliage is principally derived from the classical Roman acanthus, and is frequently used in detached scroll-like portions, terminating in the heads of birds, beasts, or fish⁸.

A highly characteristic ornament and of very frequent occurrence in Cinque Cento work, consists of a row of small

⁷ See the engravings above referred to in note (u). See also plate 22.

⁸ See plate 25 and 73. See also the engravings referred to in note (u).

rectangular indents, placed at rather more than their own width apart. It is employed to decorate any narrow flat surface.

The greater portion of the Cinque Cento ornamental work is executed on white glass, profusely enriched with the yellow stain. Many of the smaller ornaments are, however, very frequently represented in white, on ruby glass, by the removal by abrasion of so much of its coloured surface as is required for the ornament.

Medallions with heads or figures on them, executed in the last-mentioned manner, and surrounded with coloured wreaths, are also common, as are also coloured festoons and garlands, bound together with coloured ribands.

A considerable admixture of Gothic details may often be found in the ornaments of the earlier Cinque Cento glass paintings.

5. BORDERS.

Borders are hardly ever used in this style, except in mere pattern windows. They are generally composed of foliage and other ornaments executed on white glass, and enriched by staining. The ornamental pattern of the border is usually enclosed within a plain narrow white or yellow edging on either side, the space between it and the edging being very commonly filled up with black paint, or shaded dark to represent a hollow, or sometimes left white. The border is usually separated from the stone-work by a narrow strip of white glass. Its width in lower lights is frequently much less than one-sixth of the entire opening. In tracery lights the borders are sometimes formed merely of a narrow strip of white glass. Both in lower and tracery lights, the border often extends round the whole opening*.

* See plates 25 and 75.

6. PATTERNS.

Pattern windows early in the style usually have their lower lights, and larger tracery lights, filled with ornamented quarries^b, and surrounded in general with an ornamented border of white and yellow glass; the smaller tracery lights being filled with little devices, such as sacred monograms, suns, moons, &c., in white and yellow glass, surrounded with Cinque Cento ornaments, likewise executed in white and yellow. Later in the style, however, plain quarries superseded the ornamented, the painted borders being still retained. Frequently, however, even these were omitted, and the whole window was filled with plain white glass, cut into squares, or various geometrical patterns, defined solely by the leads. In Germany, &c., round glass was almost always employed instead of quarries or ornamental glazing^c.

There are many instances of windows in this style whose lower lights are partly occupied with pictures or heraldry, and partly with patterns; or whose tracery lights are filled with coloured patterns, heraldry, or other subjects, and lower lights with white ornamental glazing only.

One of the most curious pattern windows that I have met with, is in the choir of St. Lawrence's church, Nuremberg. The window consists of six lights. An ornamented pillar coloured with yellow and other tints, and on a red ground, occupies each of the two outermost lights, and a space in the upper part of the window about equal to the width of one of the outer lights, is covered with heraldry and other ornaments. A large coloured festoon suspended from the pillars stretches across the central lights, which are filled with round glass.

^b See plate 73.

^c See plate 75.

7. PICTURES.

It was not until almost the end of the first thirty years of the sixteenth century that the great powers of the art of glass painting began to be developed, or that glass paintings attained a picturesque beauty sufficient to entitle them to rank above mere ornamental decorations. These results were produced not by the introduction of any novelties into the art of glass painting as practised in the fifteenth century, but by a more skilful employment on the part of the Cinque Cento artists of the means equally possessed by their predecessors.

The pictures vary much in size, being sometimes confined within the limits of a single lower light, and sometimes extended over the whole, or a great part of a window, as was usually the case in all large works. Each picture is most commonly surrounded with a mass of ornamental work, which being executed chiefly in white and yellow stained glass, serves as a frame to it, and by its breadth completely insulates it from surrounding objects. The effect of the shaded soffit of the frame in throwing back the picture has been already noticed. In many cases, however, the pictures are separated from each other only by a mullion or saddle-bar. The pictures are in general simple in their composition, and seldom contain more figures than is absolutely necessary. The groups are usually well formed, and so arranged as to avoid as much as possible the necessity of cutting the figures and draperies by the mullions, when the design is on an extended scale, without at the same time betraying by any awkwardness of position the artist's anxiety to achieve this object. Colours as positive as those used at any former period, are freely admitted into Cinque Cento glass paint-

ings; but instead of the picture being almost entirely executed with them, as was often the case even in the Perpendicular style; the strong colours are generally qualified and supported by the introduction of a great many other tints of less power and vivacity, so as to produce a general harmony of colouring throughout the entire work. Much attention was paid by the Cinque Cento glass painters to atmospheric effect, and though perhaps they did not succeed in representing it as completely as they might have done, they developed the power of the Mosaic system of glass painting in this respect, in a very remarkable degree. In the larger pictures, the more striking and positive colours, are in general most employed in the draperies of the figures in the immediate foreground; while the landscape in the background, and even the more distant figures, are executed in light blue or grey glass, qualified and enriched with the brown shading and the yellow stain. The sky is almost always composed of the same blue sort of glass, so light in tint as almost at first sight to be mistaken for the natural colour of the firmament, seen through the window. This glass is generally left quite clear for some distance above the horizon, and is gradually deepened by shading, or the introduction of blue glass of a darker hue, towards the top of the picture. Owing to these circumstances, and to the little use of white glass in the pictures themselves,—that colour being chiefly confined to the ornamental architectural work in which they are set,—Cinque Cento glass paintings possess but little of the flat mosaic appearance which is the grand characteristic of the mediæval glass paintings^d.

I have already alluded to the practice of indicating the supernatural darkness of the Crucifixion by a slightly clouded sky, which was no doubt suggested by a desire to

^d See the plates referred to in note (u).

preserve a memorial of so remarkable an incident in such a manner as should least affect the transparency of the picture. The clouds are sometimes represented merely by shading with the enamel brown on blue glass of an uniform tint, sometimes by using pieces of a darker kind of blue glass, cut to the shape of clouds, and shaded and leaded in amongst the light blue of the firmament. In some works great liberties were taken with the colour of the clouds; purple and pink glass being freely employed to represent them. In paintings of the Day of Judgment, the glory of heaven, and the flames of hell, are generally indicated by yellow glass.

Great prominence was given during this period to the groups representing the donors of windows, or benefactors to the church. The figures, which are often nearly as large as life, are evidently portraits; they are usually placed in a kneeling posture before an altar, and behind each figure stands its patron saint. The latter is sometimes placed under a canopy of state, the whole subject being included within a room or apartment formed by a larger canopy, through the further arches of which a distant landscape is not unfrequently shewn*.

In some cases the ancient Gothic arrangement is still adhered to, the kneeling figure of the donor being represented in a small compartment immediately below the foot of a large canopy which covers his patron saint.

Pictures painted on small circles of glass similar to those which have been already described under the Perpendicular style, but better executed, are very common throughout this period. The designs of some of them are extremely good, and they are in general exquisitely finished. The

* See Lasteyrie, "Histoire de la Peinture sur Verre," plates LXXX and LXXI; see also the engravings of the

Liège windows in Weale's "Divers Works of Early Masters on Christian Decoration."

landscape &c. is executed only in brown and yellow, on white glass, but the naked parts of the figures are usually coloured light red^f.

8. CANOPIES.

The canopies of this period are generally confined to the lower lights of a window, and vary in size, from the canopy which occupies only one light, to that which extends across an entire window. The general character of their architecture is Italian, with an occasional admixture of Gothic details; and they are usually drawn in very correct perspective.

The niche commonly appropriated to a single figure consists of a semicircular recess, finished at top in a semi-dome which is usually wrought like a shell, and darkly shaded. The face of the canopy is flat, the opening being formed by a semicircular arch springing from a flat pilaster, or ornamented shaft, on each side. A festoon of flowers, in general, richly coloured, is often hung across the archway, and by the vividness of its lights serves to relieve the mass of shadow in the upper part of the niche, and to throw the recess back. The architecture above the arch sometimes terminates abruptly in a horizontal frieze, upon which foliated ornaments, urns, genii, heraldry, &c., are placed. Sometimes a pediment is raised above the arch, &c. Other canopies are more Gothic in character, consisting of a recess with a projecting hood of tabernacle-work above, or terminating in an ogee arch with a finial and crockets. Others have, strictly speaking, hardly any architectural features, the hollow allotted to the figure being closed in at top merely with arabesque scroll works. In all these cases the head of the canopy is generally backed with a coloured

^f See plate 24.

ground, its architecture being principally executed on white and yellow stained glass. The side pillars are often made of sprinkled ruby, and furnished with light blue, purple, or green capitals and bases. The interior of the niche is sometimes entirely lined with coloured tapestry. In general, however, the tapestry does not ascend above the head or shoulders of the figure, where it is suspended from a rod. In this case the back of the niche above the tapestry is sometimes pierced with windows, which occasionally exhibit Gothic tracery. The hollowness of the recess is very commonly represented by a shadow. When the light is narrow, and the pilasters of the canopy broad, the figure often appears to be too wide for the niche, and to stand in front of it, rather than within it, the pilasters being partly concealed by the drapery of the figure. The canopy sometimes has a projecting pedestal; in general, however, it rests upon a flat horizontal frieze^c.

The larger canopies which extend over several lights when enclosing a single subject, as a group of benefactors, &c., often convey the idea of a room, the exterior of one of whose sides is represented by the front of the canopy. This in general consists of an architectural elevation resembling a triumphal arch, highly enriched with bas-reliefs, &c., and terminating in a kind of pediment. The interior of the room is seen through the arch, and in it is represented the principal subject. A landscape background is often shewn through the arches or windows of the further sides of the room, the architecture of which is executed in some *retiring* colour, as purple for instance^b.

Canopies, in the true sense of the word, are not however of common occurrence in Cinque Cento work, when the

^c See examples Lettu's "Description de l'Eglise Métropolitaine du Diocèse d'Auch," Nos. 7, 8, 21, 22.

^b See a good instance of this in one of

the engravings of the Liège windows in Weale's "Divers Works of Early Masters in Christian Decoration."

design is of an extended nature. An architectural skreen, or elevation stretching over the whole of the lower lights of the window, and furnished with spacious archways for the reception of pictures, is constantly employed, when it is intended to represent in the same window either several distinct subjects, a row of insulated figures, or one principal design, with its accompanying incidents.

This skreen, though often of considerable depth, is flat-faced, and usually consists of an assemblage of great and small arches placed in tiers and supporting one another. It terminates in general in a pediment, the top of which is sometimes decorated with genii, cupids, &c., holding flags and banners, and is commonly backed with a stiff coloured ground. Sometimes however the head of the skreen is backed with plain white glass, leaded together in rectangular pieces; the horizontal leads being in general concealed by the saddle-bars. The architecture of the skreen is almost wholly composed of white and yellow stained glass, and appears like sculptured white marble, decorated with gilding, when contrasted with the gay colours of the pictures which occupy the spaces enclosed by its arches, &c. The soffit and sides of each archway are kept in deep shadow, and being brought into immediate contrast with the bright sky of the picture materially help to produce that effect of distance and atmosphere which is so remarkable a feature of a Cinque Cento glass painting. The soffit of the arch is that part which is most deeply shaded: but the mass of shadow is in general relieved by lights reflected against the ornaments sculptured on its face; and sometimes by a festoon of flowers and fruit, usually richly coloured, which is hung across the front of the arch. A similar festoon is sometimes suspended across the other side of the arch, and is represented in deep shadow against the bright sky of the picture.

Thus in a Cinque Cento painted window, the deep shadows of the architectural skreen increase the effect of the pictures, whilst the front of the skreen forms a mass of ornamented white glass which serves to separate the pictures from each other. At the same time the connected character of the architectural composition gives unity and grandeur to the whole design¹.

9. TRACERY LIGHTS.

In many early Cinque Cento examples single figures executed either in white or coloured glass are placed in tracery lights, being surrounded with an ornamented quarry ground. Borders of any kind are seldom used in these lights. The most common subjects for tracery lights throughout the style are, saints, angels, cherubs, &c., either richly coloured, or executed only in white and yellow stained glass; riband-like scrolls bearing inscriptions, heraldry, emblems, initials, &c., executed in white, yellow stained, or coloured glass, and placed on plain white or coloured grounds².

When the tracery lights are spacious, they occasionally contain coloured figures on plain white grounds, surrounded with a broad border of coloured clouds. A general design is sometimes introduced, extending over the whole tracery head of the window. Arms, when the lights are small and narrow, are frequently split into two portions and represented in two adjacent lights. Sometimes the shield is in one light, and the supporters in two other lights.

In pattern windows the tracery lights are often filled

¹ See plate 22. See also Lettu's "Description de l'Eglise Métropolitaine du Diocèse d'Auch," Nos. 6, 8, 9, 10, 11, 12, 14, 15, 16, 17, 18, 19, 20 and 21. See also Lasteurrie, "Histoire de la Peinture sur Verre," plates LVII,

LXIX and LXXVII.

² A variety of tracery lights may be seen in most of the plates already referred to, especially in those belonging to M. Lettu's work.

with foliated ornaments, usually executed in white and yellow stained glass, cyphers, &c.: sometimes with ornamented, or even plain quarries, geometrical glazing, or round glass. In these cases the light, when wide, is generally enriched with an ornamented border of white and yellow stained glass.

10. HERALDRY.

Heraldic devices constituted a very extensive and prominent branch of the decoration of this period. The shield, with its various accompaniments of helmet, crest, mantling, collars of orders, motto, &c., frequently forms an important part of the general design of a window, being supported by an angel and placed beneath a canopy. It is however more commonly represented with its accompaniments, on a ground of plain white glass, sometimes leaded together in a geometrical pattern, and sometimes in horizontal lines parallel to the saddle-bars, in which case the whole design on account of the clearness of the white glass, and the apparent absence of lead-work, is apt to appear as if suspended in the air. An heraldic design of this nature is not always confined to the limits of a single lower light, but occasionally extends itself beyond, the shield and helmet being in one light, and its mantling &c. carried into the two adjacent lights. The shields exhibit almost every variety of shape; they are often charged with numerous and complicated quarterings: lozenges are frequently used for the bearings of females.

The mantlings and scrolls are very spirited and graceful, and the helmets, crowns, coronets, &c., are very delicately and vigorously designed. The gorgeous nature of Cinque Cento decoration is strongly exemplified in the latter objects, which are highly enriched with pearls and jewellery, and the

single and double application of the yellow stain¹. Very beautiful foliated wreaths, sometimes bound about with a riband, and executed either in colours, or in white and yellow only, are frequently employed to surround the simple escutcheon^m.

Initial letters of considerable size, formed of yellow or other coloured glass, and sometimes tied together with a cord, are often represented both in tracery, and lower lights, on a plain white or coloured ground. Heraldic banners are sometimes displayed from the upper parts of canopies or skreens, and white scrolls bearing mottos are frequently introduced into tracery lights. The figures of benefactors often bear the insignia of their family on their mantles and surcoats, &c. Crests, badges, mottos, rebusses, initials, &c., executed with the enamel brown and yellow stain, are amongst the commonest subjects which occur on the ornamented quarries of this periodⁿ.

11. LETTERS.

The Roman characters do not appear to have generally superseded the Black letters before the year 1530, until which time both kinds were used indiscriminately. Both Roman and Arabic numerals were employed throughout this style.

When Black letters are used the capitals are generally Lombardic, and illuminated with yellow precisely as in the former style.

Many of the initial letters of this period are very beautiful in form, and highly decorated with leaves and other ornaments.

¹ Some excellent examples of heraldry are given in the engravings of the windows of St. Jacques church, Liège, in Weale's "Divers Works of Early

Masters in Christian Decoration."

^m See plate 23.

ⁿ See plate 23, No. 2.

12. MECHANICAL CONSTRUCTION.

The utmost attention throughout this period was paid to the glazing of the paintings so as best to conceal the leads: without thereby incurring any unnecessary difficulties in point of execution, or diminishing the stability of the work.

The horizontal divisions of the glass are almost invariably parallel to the saddle-bars, which conceal many of the leads: and the vertical divisions generally follow the course of the outlines of the design. In some instances, however, especially in skies, and canopy work of late date, the glass is leaded in lines perpendicular to the saddle-bars. The saddle-bars themselves, in late work, are sometimes bent a little out of their course so as to avoid passing across the head of a figure.

The original leads of this period are not wider in the leaf than those previously used: and from the pains taken to conceal them, and the great use of plain clear white glass for grounds, armorial bearings, as has before been remarked, as well as many other objects, often appear as if suspended in the air.

The ornamental glazing is sometimes very complicated, but always designed with a view to stability, and facility of execution. Some of the patterns are very beautiful*.

SECTION V.

THE INTERMEDIATE STYLE.

THE period I have assigned to the Intermediate style extends from the middle of the sixteenth century to the present time. From its long duration it of necessity in-

* A variety of geometrical patterns are given in Le Vieil's "*L'Art de la Peinture sur Verre*," plates X, XI, XII, and XIII. It is always easy to distin-

guish Cinque Cento geometrical glazing from Decorated by the colour of the glass.

cludes many varieties. These may be classed under two heads; the first comprising the glass paintings executed between 1550 and the revival of the Mosaic system, which took place some twenty or thirty years ago; the second, those which have been executed since that period.

Of these two classes, the first in a series of original works, exhibits the gradual decline of the art of glass painting from the excellence it had attained in the first half of the sixteenth century; the second, though it cannot claim much originality of design, most of the English examples at least, being but servile copies of ancient glass, is yet interesting as shewing the progress already made towards the resuscitation of the true art. I have endeavoured in a subsequent part of this book to point out what are the true principles of glass painting, and the reasons why I prefer the Mosaic system to either the Enamel, or Mosaic enamel^p. I therefore do not now intend to enter upon any discussion on the subject. Assuming however the correctness of my views on this point, it follows that glass painting deteriorated not in consequence of any want of encouragement, for the causes of its decline were in full operation at the period of its greatest prosperity, but from confounding its principles with those of other systems of painting, from a disregard of its peculiar conditions and distinctive character. The Reformation and its troubles did not *corrupt* the art of glass painting, though combined with the prevailing fashion of the times, it may have discouraged its practice. The Mosaic system of glass painting would equally have been forgotten had the Reformation never taken place, and the religious habits and feelings of the people remained unchanged.

The characteristic which in general serves to distinguish glass paintings of the Intermediate style from those of the

^p See chap. ii. § 2, On the true principles of glass painting, &c.

Cinque Cento, is the employment of enamel colours. The nature of these colours, which appear to have been discovered about the middle of the sixteenth century¹, has been already explained, as well as the facilities they afford for producing a great variety and gradation of tints.

Enamels were at first very sparingly used, being employed merely to heighten the tint of the coloured glasses, or for the purpose of introducing colour into places where it would have been difficult if not impossible to lead in a piece of coloured glass: by degrees, however, their easy application, and the increasing disposition to assimilate glass paintings to oil paintings, led to their substitution in a great degree for coloured glass.

The presence of enamel colours in a glass painting is, in general, easy of detection. The partial colouring of a piece of white glass, especially when the coloured part bears but a small proportion to the white part, will almost always excite a suspicion that the effect has been produced by enamelling'. On a closer inspection, the difference be-

¹ There is no sufficient ground for attributing the invention of enamels to John Van Eyck, as has been done by Le Vieil, "*L'Art de la Peinture sur Verre, et de la Vitrierie*," pp. 30, and 36. He also states that the art of painting on glass with enamels was perfected in France by Pinaigrier, and that he was even regarded in France as their inventor, *ib.* pp. 63, 43. This, if correct, would place the introduction of enamels in the first half of the sixteenth century. I should add, however, that I have found Le Vieil not altogether trustworthy in his account of the different methods of glass painting.

² A specimen of enamel painting is given in plate 74 from a Swiss example of the early part of the seventeenth century. In addition to the enamel brown, with which the shading and outlines are executed, four different enamel colours, viz., blue, green, red, and purple are here represented; the green, in this particular instance, being of itself an enamel

colour, and not produced, as is often the case, by staining the glass yellow on one side, and enamelling it with blue on the other. The yellow represented in the plate is of course stained yellow.

Other specimens of enamel painting are given in Fowler's "*Mosaic Pavements and Painted Glass*," viz., Robert King, last abbot of Osney, and first bishop of Oxford, from a painting at Christ Church, Oxford, (supposed by Dallaway to be by Bernard Van Linge; see Dallaway's "*Observations on English Architecture*," p. 279, note,) and the portraits of the Saxon earls, from Aston Hall, near Birmingham, a coloured engraving of which is also given in "*Old England*," vol. i., where they are said to be at Brereton Hall, Cheshire.

See also Lasteyrie, "*Histoire de la Peinture sur Verre*," plate LXXV, where enamels are introduced in a garland of flowers, at the bottom of a picture dated 1551.

tween the effect of an enamel colour, and that produced by a piece of coloured glass, will usually be at once perceived in the comparative dulness of the former. With regard to the general appearance of the work, it will be found that the employment of enamels to heighten the tint of the coloured glass, increases the richness of the glass painting, whilst poverty of colour is the result of their substitution for pot-metals, &c. In either case they tend to diminish the transparency and consequent brilliancy of the picture.

Windows painted even as late as the early part of the eighteenth century usually bear a considerable resemblance to those of the Cinque Cento style in their general arrangements. The most common design consists of one large picture which occupies the lower lights of the window, the picture being in general surrounded with architectural work, as a triumphal arch or skreen; or of one large picture with portraits of its donors beneath, or of two or more pictures, each enclosed within a frame-work of architecture, and which together cover the whole of the lower lights. The tracery lights are usually filled up with a continuation of the principal design, or with smaller subjects accessory to it. The architectural details are rather Palladian, than Cinque Cento in character. In the course of the seventeenth century the architecture was more embodied with the picture than was the case in the Cinque Cento style. The same contrasts of light and shade were not kept up, and the designs became less striking in their effect*. After the beginning of the eighteenth century, architectural frame-works to surround the designs were generally abandoned.

* See Lasteyrie, "*Histoire de la Peinture sur Verre*," plates LVII, LXX. See also the representations of the windows

of Gouda church, Holland, in Weale's "*Divers Works of Early Masters in Christian Decoration*."

Figure and canopy windows are not uncommon, their architecture is either Palladian, or debased Gothic. The interior of the niche frequently is so darkly shaded as to appear black, and parts of the canopy work are often enriched with enamel colours. In their general arrangement, however, the figure and canopy windows of this style, previously to the revival of the Mosaic system, closely resemble the Cinque Cento examples¹.

The wheel windows are sometimes like the Cinque Cento; more commonly, however, the radiating lights are each filled with an entire figure, having its feet turned towards the centre of the circle.

Pattern windows are composed simply of white glass cut into quarries, or various other geometrical patterns, and leaded together. Ornamented borders to the lights are seldom to be met with after the middle of the seventeenth century, and never were very common. In Germany, &c., round glass was in general used instead of plain white glass. Coats of arms, and even small scriptural or historical subjects, were sometimes inserted in pattern windows.

The revival of the Mosaic system in this country, has been attended with the revival of most medieval arrangements, and has produced but few new, or original designs. In Germany, however, greater freedom has been displayed, the artists availing themselves of the ancient designs as guides, rather than as models to be servilely copied.

Some of the earliest examples of the Intermediate style are to be found in the church of Gouda, in Holland².

¹ See Lasteyrie, "Histoire de la Peinture sur Verre," plate LXXV.

² An account of the subjects represented in these windows, and the names of the artists employed, are given in a little book entitled "Explanation of the famous and renowned Glas-work or painted windows, in the fine and eminent Church at Gouda. For the use

and commodity of both Inhabitants and Foreigners that come to see this artificial Work." Gouda, printed by J. Van Benthum, no date: my copy was purchased in the autumn of 1843.

Le Vieil's description of these windows, ("L'Art de la Peinture sur Verre," p. 44 et seq.) is taken from a former edition of the above-named work. The

With the exception of a few Cinque Cento specimens in the clearstory of the choir, all the windows of this edifice were erected between 1555 and 1603. Two of them were indeed repaired as late as 1651 and 1655. The names of the artists who executed these works have been preserved, a circumstance which gives additional value to the Gouda windows, since it enables many little differences in style to be referred not to progressive changes in the art, but to the practice of particular masters. The influence of particular schools may always be more plainly perceived in the Intermediate style, when artists acted more independently of each other, than in the middle ages, during which a certain general uniformity of style was preserved by a widely extended observance of conventional rules.

The Cinque Cento arrangements are in general preserved in the Gouda windows^{*}. In the majority of instances the window contains two designs, the lowest representing the donors of the window, or their heraldic insignia, and the upper some religious, historical, or allegorical subject. Each picture extends across the window irrespective of mullions, and is usually enclosed within a frame-work of architecture. The principal subject sometimes has only a landscape background.

The execution of the painting, however, differs much from that of a Cinque Cento example. The chief mass of colouring is, as in that style, confined to the picture, whenever this is surrounded with architectural ornaments; but the colours are produced as much by means of enamels as of coloured glass. In some windows, especially those erected in the latter part of the sixteenth century, enamel

English edition is reprinted, without acknowledgment, in the first vol. of Weale's "Quarterly Papers," constituting "the account" there given "of the painted glass windows of the Church at

Gouda, in Holland."

^{*} See the engravings of the Gouda windows in Weale's "Divers Works of Early Masters in Christian Decoration."

colours are almost wholly substituted for coloured glass. The character of the shading also differs much from that of the Cinque Cento style. The enamel ground used for this purpose is not worked up into dots by bold stippling, but is watery and dabbled, without having any decided grain, while the darker shadows are, with a few exceptions, produced by unstippled smears of paint. The white glass in those parts of the painting which are not in shadow is seldom left clear, but is covered with a white enamel. Owing to these circumstances, the Gouda windows are less effective than many Cinque Cento or late Gothic examples, inferior to them in grandeur of design. Taken collectively they are poor in colour, and dull in appearance, and it is worthy of remark that this poverty and dulness are not more perceptible in those windows erected to commemorate the triumph of the Protestant Faith, and the Independence of the United Provinces, than in those inscribed as the gift of the most Catholic princes of Christendom. Indeed the very earliest examples exhibit precisely the same defects as the latest.

In England during the latter half of the sixteenth century, the Reformation appears to have stopped all great works. In the reign of Elizabeth little else was attempted than coats of arms, which were usually enclosed within panels of that species of ornament known by the name of Elizabethan, and in the execution of which pot-metal and enamel colours were nearly equally employed, or small subjects taken from Scripture, such as the wisdom of Solomon, &c., executed in white and yellow stained glass.

Glass painting, however, considerably revived in the reigns of James I.⁷ and Charles I. One of the best specimens of the former reign, is in the chapel of Archbishop

⁷ Bacon, in describing the model of a palace, places, in the stately galleries on

the banquet side, "fine coloured windows of several works." Essay on Building.

Abbot's hospital, at Guilford, Surrey. It is defective in transparency, but is much richer in effect than the Dutch and Flemish glass paintings of the same period. In its general appearance it resembles the works of the Van Linges, who were extensively employed in England in this and the next reign. Of these artists many undoubted productions exist at Oxford and elsewhere*. Their paintings at Oxford generally consist of large pictures extending over the whole or greater part of a window, irrespective of the mullions, and usually furnished with landscape backgrounds, exhibiting a great preponderance of green and blue. They are deficient in brilliancy, but are in general exceedingly rich in colour, the enamels in most cases being used rather to heighten the tint of the coloured glass, than by way of substitution for it. This last remark equally applies to the windows of Lincoln's Inn chapel^a, which if not actually painted by the Van Linges, are at least of their school. In point of colour they are as rich as the richest Decorated glass that I have ever seen. The majority of the windows of this chapel are figure and canopy windows, having the arms of their donors placed beneath the feet of the figures. The east window is now filled with glass of a much later date, and there is no proof that it ever was adorned with glass of the same date as that in the side

* A list of artists who practised glass painting in England in the seventeenth and following century, and references to some of their most remarkable works, is given in Dallaway's "Observations on English Architecture," Lond. 1806, p. 277 et seq. Le Vieil has collected the names and given short notices of most of the French and Flemish artists from the fifteenth century, to the middle of the eighteenth. "L'Art de la Peinture sur Verre et de la Vitrerie," p. 33 et seq. It appears that many of the artists of the sixteenth and following centuries, practised oil painting as well as glass paint-

ing, and that many more forsook glass painting for oil painting.

The most complete list is in Dr. Gessert's "Geschichte der Glasmalerei," p. 78 et seq., which includes German, Flemish, French, English, Swiss, Italian and Spanish artists, from the eleventh century to the year 1800.

^a The Hon. Society of Lincoln's Inn possesses no authentic information respecting these windows. In all probability they were erected at the cost of the individuals whose arms are inserted in them.

windows. The west window evidently was an heraldic window, and much of the original glass remains in its upper part. Amongst the arms still existing may be noticed those of Noy, attorney-general to Charles I., and of Henry Sherfield, Esq., recorder of Salisbury, who was so severely fined by the Star Chamber for breaking what he considered an idolatrous painted window in a church at Salisbury^b.

After the reign of Charles I. the further progress of glass painting was for a while retarded by the Rebellion, and the gloomy prejudices of those unhappy times, when men were led rather to deface and despoil churches and places of worship of their ornaments, than to render them the receptacles of works of art^c.

The taste for painted glass had so universally declined both at home and abroad towards the latter half of the seventeenth century, that it is not surprising that so few works of interest should have been executed in this country after the Restoration. Of heraldic achievements in glass there is indeed no lack; the glass painters, even in the times of the greatest depression, seem to have been continually employed on such subjects.

The earliest example of a picture glass painting since the Restoration that I am aware of, is the east window of University college chapel, Oxford, the subject of which is the Birth of Christ, painted by Giles of York in 1687. Time has already severely injured this work. The colours of the stains and pot-metal glass remain, but the enamel painting has almost wholly perished, a proof how much the

^b See "State Trials," vol. i. p. 399, fol. ed. The "images of the apostles" in the Lincoln's Inn chapel windows, are referred to by Archbishop Laud in his account of his own trial. "State Trials," vol. i. p. 884. fol. ed.

^c There can be little doubt, I think,

that we owe the preservation of many glass paintings to their timely removal from the windows at the Rebellion. Some were respected through conventions entered into with the parliamentary generals, or from scrupulous motives.

art had deteriorated at that time even in its most mechanical department, the composition of the fluxes.

William Price, in 1702, painted the lower lights of the east window of Merton college chapel, Oxford, the subjects being taken from the life of Christ. This is, as the last-mentioned work must have been, a weak performance as regards colour, enamels being used almost to the substitution of coloured glass. His brother Joshua, however, in the east window of St. Andrew's church, Holborn, (which is dated 1718, and represents two subjects, the Resurrection, and the Last Supper,) has really rivalled the rich colouring of the Van Linges. In this window coloured glass is abundantly used, together with enamels, in the draperies of the figures. The painting is deficient in brilliancy, and some of the shadows are nearly opaque, yet these defects may almost be overlooked in the excellence of its composition, and in its immense superiority as a glass painting over all other works executed between the commencement of the eighteenth century, and the revival of the Mosaic system. A like richness of colouring is observable in most of the other works of Joshua Price. He however seems to have imitated not only the tints, but also the heavy though effective execution of the Van Linge school. This is I think particularly observable in such of the uncoloured side windows of Magdalene college chapel, Oxford, as were painted by him⁴.

Coloured glass continued to be extensively used in England, together with enamels, until the beginning of the present century, to which circumstance many of the works of William Price the younger, and Peckitt of York, owe their principal effect and value. The latter, it is true, in the allegorical painting in the library of Trinity college, Cam-

⁴ Viz., all but the easternmost one on either side.

bridge*, has in great measure dispensed with the use of coloured glass. He has however applied the enamels to the glass in little hatches, as in an oil painting, by which means much of the dulness so observable in earlier works has been avoided.

The practice of painting even large works entirely with enamels and stains, was introduced here in the latter half of the last century. Of this, one of the most remarkable examples is afforded by the west window of New college chapel, Oxford†.

The enamels are applied in little hatches, and the painting has in consequence a very pearly effect, but the inferiority of this work in point of colour to those in which coloured glass has been employed, must be apparent to the most casual observer. The windows of Arundel castle, Sussex, are inferior instances of the same system. In their washy appearance they rather resemble a painted canvas window-blind, than a painted window.

The decline and fall of glass painting may be as distinctly traced on the continent as in England. The cause of its corruption has been already alluded to, that of its gradual disuse may be ascribed rather to the fashion of the times, and a preference for works of art executed in other

* It was designed by Cipriani, and was put up towards the end of the eighteenth century.

† This window, which consists of two designs, the upper being the Nativity, and the lower the four Cardinal, and three Christian virtues, placed in a row, was "painted by Jervais, from finished cartoons furnished by Sir Joshua Reynolds, and begun in the year 1777." [Ingram's "Memorials of Oxford," vol. 1.] It must have been put up between that time and 6th Oct. 1785, when Horace Walpole thus writes to the Hon. H. T. Conway. "I don't wonder you was disappointed with Jarvis's windows at New college: I had foretold their miscarriage:" (in a letter to the Rev.

Mr. Cole, 12th July, 1779) "the old and the new are as mismatched as an orange and a lemon, and destroy each other, nor is there room enough to retire back and see half of the new; and Sir Joshua's washy virtues make the Nativity a dark spot from the darkness of the shepherds, which happened, as I knew it would, from most of Jarvis's colours not being transparent." These remarks appear just. The radical defect of the work, however, consists in the general unfitness of the design for a glass painting. Had it been executed in coloured glass, it would have still been unsatisfactory, though it would have more nearly approached the splendour of Sir Joshua's original sketch.

materials than glass, than to the wars consequent on the Reformation, though these to a certain extent must have checked its practice⁶.

In France, even towards the end of the sixteenth century, the substitution of enamels for coloured glass does not appear to have taken place to the same extent as in Holland and Belgium; and the French glass paintings are proportionably richer, and more effective. A proof of this is afforded by the beautiful representation of the Visitation of the Blessed Virgin, which was brought from the church of St. Nicholas at Rouen, and now, through the munificence of the late Lord Carlisle, adorns one of the choir windows of York cathedral^h. This work, which judging from its

⁶ An illustration of the rapidity of the decline of glass painting in France, and a striking contrast between the universal taste for this art in one age, and the discredit into which it had fallen in that which immediately followed, may be seen in Le Vieil's "*L'Art de la Peinture sur Verre et de la Vitrerie*." In the sixteenth century, he observes, the quantity of works is astonishing; not only churches and palaces and the mansions of the great, but town halls, the saloons of the rich, and the apartments of private individuals, and even carriages were ornamented with glass paintings from the designs and cartoons of the best masters. (ib. p. 38). By the end of the century, on the other hand, we find Bernard de Palissy, a glass painter, complaining of the difficulty which the too numerous glass painters had of procuring subsistence, and the imperfect manner in which many works were, in consequence, executed. Palissy adds that at the end of the sixteenth century, the art of making and colouring glass began to decline, especially in Perigord, Limousin, Xaintonge, Angoumois, Gascony, Bearn, and Bigorre. The glass paintings from these provinces were hawked about by the sellers of old clothes and old iron. "*L'état de Verrier*," he continues, "*est noble, mais plusieurs sont Gentilshommes pour exercer le dit art, qui vendroient être routuriers et avoir de quoi payer les subsides des*

Princes, et vivent plus mechaniquement que les crocheteurs de Paris." (B. de Palissy as quoted by Le Vieil, ib. p. 62.) In a subsequent chapter (ib. p. 81.) Le Vieil, after noticing the almost total extinction of his art at the time he was writing, enumerates the reasons which were usually alleged to account for and justify the continuance of its disuse. These were the fragility of the material, and the liability of glass paintings to perish,—the obscurity they occasioned in churches, an inconvenience which had caused many of them to be taken down,—the unbecoming character of many ancient glass paintings,—and the difficulty of repairing those which had fallen into decay, on account of the art of colouring glass being lost. Le Vieil combats these reasons, most of which are sufficiently frivolous, but they serve to illustrate the light in which glass painting was held at that time.

^h Viz., the easternmost window in the side of the south aisle. This beautiful work, which was presented to the cathedral in 1804, appears to have been taken from a design of Baroccio. Le Vieil however states, "*Histoire de la Peinture sur Verre et de la Vitrerie*," p. 57, that it was said to have been painted after a cartoon by Raphael Sadeler. The annual register for the year 1804, in recording the gift to the cathedral, says, that "the figures were always considered to

style, is of the close of the sixteenth century, is one of the latest good specimens of glass painting in existence. There is perhaps rather a want of transparency in the shadows, owing to their ground not being sufficiently stippled,—a symptom of the decline of the art,—but enamel colours are very sparingly introduced, being employed merely in the borders of the draperies, and in other subordinate parts, and there not to such an extent as to diminish the transparency of the picture.

The windows of the transept and north aisle of the nave of St. Jacques' church, Antwerp, which are cotemporary works, (some are dated 1620, 1621, 1629 and 1640,) have precisely the same defects as the Gouda windows; viz., a washiness and want of brilliancy, the consequence of employing enamels in a great degree in lieu of coloured glass, and of omitting to confine the shadows to their proper limits, and to sufficiently stipple their ground. Windows of an earlier date, quite as dark and dingy as these, may be seen in Amsterdam cathedral¹; they were erected in 1555.

The four eastern clearstory windows of the transept, Antwerp cathedral, dated 1613, are as defective in transparency as those last mentioned, although but little enamel colour is used in them.

In their general arrangement all the foregoing windows resemble the picture windows of the Cinque Cento style.

Some of the best examples of glass painting of the middle of the seventeenth century, remain in the four windows of the chapel of the Virgin, Brussels cathedral. They are dated 1649, 1650, 1658, 1663².

have been designed either by Sebastian del Piombo, or Michael Angelo." p. 432. It is evident that it was originally designed for a window of four lights.

¹ Viz., three in the north aisle, representing the Visitation, the Nativity of Christ, and the Death of the Virgin.

² The principal subjects of these windows are enumerated in the text in the order in which they are, counting from the eastward. The first window from the east is inscribed as the gift of the emperor Ferdinand, 1650, the second, that of the emperor Leopold, 1658, the third,

The Cinque Cento arrangement is preserved in these windows; two tiers of archways, or rather architectural screens fill their lower lights, the lower containing portraits of the donors kneeling and attended by their patron saints, the upper, one of the following subjects, the Presentation in the Temple, the Marriage of the Virgin, the Annunciation, and the Salutation. In these works, coloured glass is used only in some of the draperies, the picture being almost entirely painted with enamels and stains. The shading is also not sufficiently stippled and open, and the general effect of the windows, when contrasted with the Cinque Cento examples in the opposite chapel of the Miraculous Sacrament¹, is dull and dirty. The most brilliant window of the four is that of the Annunciation, owing to the flood of light which is admitted through the clear yellow glass with which the angel Gabriel is surrounded. With all their faults, however, these windows are, from the nature of their design, grand and imposing objects, and when viewed from the nave of the cathedral, whence their want of transparency is less observable, and their colouring from being seen sideways is apparently increased in depth, they constitute very splendid ornaments. It must be admitted, however, that their merit is greater as works of art than as glass paintings.

After the middle of the seventeenth century, glass painting appears to have gone more rapidly and completely out of fashion on the continent than in England. Few works

that of the archduke and archduchess Albert and Isabella, 1663, and the fourth, that of the emperor Leopold, 1649. Le Vieil, "*L'Art de la Peinture sur Verre et de la Vitrerie*," p. 71, ascribes these windows to Abraham Van-Diépenbeke, a pupil of Rubens, and a skilful painter in oils as well as on glass. He was nominated director of the academy of Antwerp in 1641. It is not improbable that this artist merely furnished the de-

signs for these windows, which may explain the report that they were painted by Van Tilden after designs by Rubens. The fourth window from the east, which as above stated is inscribed as the gift of the emperor Leopold, 1649, bears also the following inscription, "*I de Labarre i et Fa 1654*," from which it would seem that he both designed and executed it.

¹ These have been already noticed in the course of the Cinque Cento style.

of greater interest than coats of arms, and little borders and ornaments, were executed during the remainder of the century, and these were but of small importance. In the eighteenth century little else was done than repairs; and Le Vieil mentions that at the time he wrote (1768) there was but one glass painter in Paris, and he had so little employment in his art, that he would not have had the means of subsistence if he had not joined to it the business of a glazier^m. Previously to this time enamels had so entirely superseded the use of coloured glass in France, as to have caused its manufacture in that country to be discontinuedⁿ.

The revival of the Mosaic system of glass painting has been more complete in this country than abroad. Some of our modern specimens are indeed not inferior to the best ancient examples in the mere strength and vividness of their colouring, but such is the tendency of opinions on matters of taste to run into opposite extremes, that whilst celebrating the exchange of a vicious for a purer practice of glass painting, by the abandonment of the enamels of the last and early part of the present century; we have to deplore the loss in general of that originality of design and treatment of subjects, which constituted the redeeming quality of the works of that period. Indeed the erroneous notion that nothing besides brilliancy of colour is required

^m "L'Art de la Peinture sur Verre et de la Vitrerie," p. 81. The artist alluded to seems to have been a brother of Le Vieil.

ⁿ It is clear from Le Vieil's statement in "L'Art de la Peinture sur Verre et de la Vitrerie," that in his time, glass was no longer coloured in France at the manufactories, either as a pot-metal, or as coated glass. Coloured glass of the former kind, and probably of the latter also, was procured from Bohemia and Alsace. Of coated glass, however, he seems to have had no knowledge whatever. The process of colouring glass on one

side, described by him, is enamel colouring, and even this he speaks of as being disused in France, adding that such disuse had given rise to the prevalent opinion that the art of painting on glass was lost. It is to be observed that in describing the last-mentioned process, he does not speak from personal experience, but takes his account from Kunkel; and on the whole, his want of practical knowledge has caused some obscurity in the terms he applies to the different kinds of coloured glass, and renders his authority in relation to them of little value.

in a glass painting, has engendered the cultivation of a low species of art, and the servile imitation of the grotesque and extravagant drawing of the middle ages.

The great majority of the English glass paintings of the revived Mosaic style, are either direct copies of an original work, or mere compilations, in which each individual part is taken from some ancient example. They are in general easily distinguishable from ancient glass even when the closeness of the copy precludes any mixture or confusion of style; the imitations of the earlier patterns being betrayed by the flimsy quality of their material, and by the attempts made to impart depth of colour, and tone, to them, as well as to disguise their real date, by dirtying or dulling over the glass with enamel brown or other pigments: and the imitations of the later specimens by a peculiar heaviness of execution, and a display of the imperfect drawing of the ancient artists without any of their feeling or inspiration. To which may be added the imperfect fluxing of the enamel brown, the ruddiness of its hue, and the occasional use of other enamel colours. There are of course some examples to which the above strictures do not apply, but these works^o partake rather of the character of a new and original, than of mere imitative style, which sufficiently serves to distinguish them from ancient glass^p. The French, in their imitations of ancient glass paintings, have been more successful than ourselves in catching the *spirit* of their models, a circumstance which is no doubt attributable to the higher artistic talent generally employed

^o As for instance the artistical productions of the late Mr. Miller, in whose figures are displayed all the delicacy and grace which belong to original works of the commencement of the sixteenth century, without their defective drawing; and the subsequent performances of Mr. Ward, and Mr. Nixon.

^p Of all modern works the most diffi-

cult to be distinguished from ancient, are Mr. Willement's heraldic glass paintings, whether in respect of their design, or their execution. So thoroughly has he imbibed the spirit of the ancient draughtsmen, that the quaintness he imparts to his works has a truly original air.

in the practice of glass painting in France. The different texture of the modern material to the old, will in the generality of cases serve to detect the copy.

In Germany, instead of the revival of the Mosaic system, we see the adoption of the Mosaic Enamel, purified of such of its defects as are not absolutely inherent; and instead of mere imitations of ancient authorities, the bold and undisguised developement of a new and original style, apparently having for its object an union of the severe and excellent drawing of the early Florentine oil paintings, with the colouring and arrangement of the glass paintings of the latter half of the sixteenth century. There is therefore no danger of confounding the productions of the Munich school with those of the middle ages. With a full persuasion that the adoption in Germany of the Mosaic system would be attended with beneficial results, I am compelled to admit that the artistical character of the Munich glass paintings in general, renders that school at the present moment on the whole superior to all those which have arisen since the beginning of the seventeenth century.

I now proceed to a more detailed description of some of the most remarkable features of the Intermediate style.

1. THE TEXTURE AND COLOUR OF THE GLASS.

The white glass throughout all but the last few years of the Intermediate style, is in general of a pale dusky yellow tint; sometimes however it is colourless, or of a light bluish green hue. The different kinds vary but little in substance, but the colourless glass is usually of a harder texture than the yellow, and takes the yellow stain less easily¹. One kind of colourless glass, however, which was

¹ Le Vieil notices the difference in colour and texture between various kinds of white glass in his day. He states

that Venetian glass is softer and less resists the fire than that made in Germany, Hesse, and at St. Quirin in

much used in glass paintings, is often stained to the deepest tint of orange. During the reigns of Elizabeth and James I. there were in this country other varieties of white glass besides those which have been mentioned, one sort without the thickness of the sheet being increased, is of a deep dirty olive colour, like modern common bottle glass: another is of an indigo blue, or purplish green tint, as deep and powerful as Early English or Decorated white glass, for which it may by an unpractised eye be easily mistaken; the inky purple colour of a third kind seems to indicate the presence of manganese in its composition. With the exception of the last sort but one, which is apt to become perforated with holes as large as the head of a pin, all this glass is but little affected by the action of the atmosphere. The yellow sort, in particular, is sometimes covered with minute black dots, but is seldom much obscured. The surface of the sheet is generally uneven and crumpled, so that objects seen through the glass appear greatly distorted.

In the early part of the last century, crown glass began to be used instead of broad glass, (to which alone the above remarks apply,) in glass paintings. Indeed all the more elaborate enamel glass paintings are composed of it. Crown glass is in general easily distinguished from broad glass, by its flimsy appearance, and its want of tone.

Within the last few years, the demand for imitations of ancient painted glass has occasioned the manufacture of white glass purposely tinted in imitation of the old, from which however it is easily distinguishable by its texture, its colour, and even the levelness of its surface.

Ruby glass was certainly used in this country as late as

Vosges: and that the French glass is harder than any of these, being much less charged with salts. He also cites an observation of Kunkel, that the

yellow stain takes best on Bohemian and Venetian glass. "L'Art de la Peinture sur Verre et de la Vitrerie," pp. 109, 110, 111.

the first quarter of the eighteenth century. That found in the glass paintings of this time exhibits all the peculiarities of ordinary ruby. Its tint however changed from scarlet, to a deep crimson, or rather claret colour, as early as the reign of Elizabeth, during which period it began to be superseded in small works by enamel red. This, which is a compound colour, produced by covering stained yellow glass with a coat of enamel, resembling China red, is always of a strong orange tint, and may on this account as well as by its want of depth and transparency be immediately distinguished from ruby. The facility of its application caused it to be always much employed. It is durable, for though the enamel colour may be easily scratched off the glass with a pin, or even a pointed stick, it is not much affected by the action of the atmosphere. The art of making ruby lay dormant from it would seem the beginning of the eighteenth century until within the last twenty years, during which time many expedients were resorted to, in order to produce red glass'. The most common was that of deeply staining crown glass on both sides of the sheet, but the result was seldom satisfactory, the colour in general being dull, and inclining to orange. I have indeed seen in some modern works, especially in those of Mr. Willement, small pieces of stained red not to be distinguished from real ruby. Mr. Ward has also produced a red, by combining an enamel with a stain, which except on a close inspection

' It would seem from a passage in Evelyn's Diary that difficulty was experienced in obtaining a good red stain, and that as late as the year 1682, the glass painters had not overcome it. This may perhaps account for the use of ruby glass until the period mentioned in the text.

"At y^e meeting of R. Society were exhibited some pieces of amber sent by y^e Duke of Brandenburg, in one of w^{ch} was a spider, in another a gnat, both

very intire. There was a discourse of y^e tingeing of glass, especially with red, and y^e difficulty of finding any red colour effectual to penetrate glass, among y^e glass painters; that y^e most diaphonous, as blue, yellow, &c. did not enter into the substance of what was ordinarily painted, more than very shallow, unless incorporated in the mettall itselfe, other reds and whites not at all beyond y^e superficies."—*Evelyn's Memoirs*, vol. iii. p. 65, 8vo. ed.

might easily be mistaken for ruby. Happily however for glass painting, a stop has been put to these inventions by the revival in France of the manufacture of ruby glass, identical in texture and colour with that of the first half of the sixteenth century.

The use of pot-metal yellow, seems to have been abandoned soon after the middle of the seventeenth century, and to have been superseded by the yellow stain, which is generally of a deep colour, and frequently of an orange tint. Light blue pot-metal glass was much employed throughout the style, in representations of armour, and landscapes, ornamental work, &c.; but the blue glass commonly used in draperies, &c., was of a deep purple tint, until the revival of the Mosaic system within the last few years, when a recurrence to ancient colours took place.

The green of the Van Linge school, is of a fine rich olive colour, but that which was generally employed until lately, is of a cold raw tint.

Of the various enamel colours, blue, besides being in general the dullest, is that which is the most perishable, being liable to chip or scale off, leaving the surface of the glass which was beneath it, quite rough. That in the Swiss glass paintings of the sixteenth and seventeenth centuries is not open to this objection, being completely fluxed, and nearly as transparent as pot-metal blue. The Swiss enamels are indeed the only ones which seem to perfectly resist the action of the atmosphere.

In enamel paintings many compound colours are produced by applying two enamels of different tints, to opposite sides of the glass; or, by staining one side, and enamelling the other.

A perfectly black enamel was much employed, even as early as the reign of Elizabeth, to represent sable in heraldry, or black draperies, &c.

2. MODE OF EXECUTION*.

The coarse stipple shading of the Cinque Cento style was retained in many instances, as late as the middle of the seventeenth century: the deeper shadows, however, being formed of unstippled hatches of brown paint, or with thick smear shading. Sometimes indeed they are slightly stippled, but not sufficiently so as to produce a grain. In general, however, the brown ground appears as if it had been simply washed in, and allowed to dry without being stippled, or else it is so slightly stippled as to have no decided grain; the deeper shadows in this case being formed as before mentioned, or with dense black dabs of brown paint. Lights are taken out in the usual way by scraping off the brown ground. The Dutch and Flemish artists seem to have always had a prejudice against perfectly clear lights, especially where white glass is used, except of small extent, and to have generally spread a coat of white enamel on the back of the glass†, which produces a dulness resembling that of a piece of ground glass.

In the eighteenth century, and subsequently, the glass was painted with enamels, very much as canvass is with oil colours, viz., in little hatches, and the shadows were not produced merely with enamel brown, but with deeper tints of the various local colours. In this way the shadows are almost imperceptibly blended with the lights, scarcely

* The different modes of glass painting are considered with reference to their effect on the transparency of the material, in the second section of the second chapter of this book.

† This practice is defended by Le Vieil, "*L'Art de la Peinture sur Verre et de la Vitrierie*," pp. 110 and 133, who in the former place controverts Dom Perneti's opinion that it is improper to paint glass

white, both because this would render it opaque, and also because the glass when left clear appears to the spectator as if it were white. Le Vieil himself in drawing a comparison between the two brothers, Dirk and Walter Crabeth, however, admits the effect of clear lights in a glass painting as producing brilliancy.—*Ib.* p. 44.

any part of the glass being left perfectly free of colour, or the marks of the brush.

The practice of abrading the surface of ruby glass for the sake of representing white or yellow objects on it, continued to be occasionally used as long as the ruby itself was employed. The same object was however more frequently achieved by means of the enamel red.

3. FIGURES.

The Italian manner of drawing, much corrupted, had entirely superseded the medieval at the commencement of the Intermediate style, though medieval costumes were occasionally represented^a. The figures are in general well proportioned, but the draperies, though ample, are seldom natural, but have a vague and unsatisfactory appearance. The folds are too much broken up and diversified, and in general do not express the action of the figure beneath with sufficient precision. It is principally to this want of crispness, and decision in the draperies, that the heaviness of the figures of the seventeenth and eighteenth centuries is owing: for where there are no strongly marked projections, there can be no vivid lights; and a glass painting without a sufficient proportion of vivid lights must necessarily be dull in effect.

The figures are generally far better designed than executed. In English glass paintings of the seventeenth and eighteenth centuries the execution of the heads and hands is frequently very coarse, vulgar, and inartificial.

White glass is generally used for the naked parts of the

^a If the engraving of the morrice dancers formerly in a window of the house of George Tolleth, Esq., Betley, Staffordshire, which forms the frontispiece to the first vol. of "Old England," be correctly coloured, this glass must

have been painted subsequently to the middle of the sixteenth century, whatever may be the date of the costumes of the dancers. The presence of enamel colours in the window would set this question at rest.

figures, which are tinted and shaded with a red enamel, the hair of the head being left white, stained yellow, or coloured brown. The white of the eye is also in general coloured pale blue, or left white. The iris is not unfrequently painted blue. The lips and cheeks were tinted with a brickdust coloured red, until the latter part of the last century, when this colour was superseded by a light carnation.

4. ORNAMENTS.

The ornaments introduced into the glass paintings of the Intermediate style, always resemble those found in other decorations of the same period. At the commencement of the style, the Cinque Cento character of ornament was preserved. This gradually gave way to the curious style known as Elizabethan, which was in its turn superseded by that of Louis XIV., &c.

The Elizabethan form of ornament offered in its little scrolls, its incrustations of jewellery, &c., many opportunities of introducing various enamel colours^{*}. The general body of the ornament was usually stained yellow. Yellow was the colour principally employed in the later ornaments.

5 and 6. BORDERS AND PATTERNS.

The pattern windows of the latter half of the sixteenth and during the following century are in general composed of plain white glass in quarries, or cut so as to form with the leads various geometrical patterns[†]. In some rare in-

^{*} See examples of this style of ornament, plates 26 and 74.

[†] A geometrical pattern very commonly used in the reign of Eliz. and James I., is represented in plate 26. In ordinary cases, the square occupied with the coat of arms is of course filled

with a piece of plain white glass. The geometrical patterns of this, as well as of the Cinque Cento style, are not only distinguishable from the Decorated and Early English, by the colour of the glass, but in the generality of instances, by the form of the pattern itself. The

stances of the time of Elizabeth, or James I., a few plain pieces of coloured glass are inserted amongst the white glass^a. Ornamental glazing however became to be greatly discontinued in the course of the eighteenth century, and the windows were usually filled with uniform rectangular panes of white glass^a.

In Germany, round glass was in general substituted for plain white glass. The panes seem to have reached their greatest diameter^b about the middle of the last century, at which time, from the level smoothness of their surfaces, it is difficult to distinguish them at first sight from circular pieces of plain white glass.

Borders to the lights were not commonly used. The latest that I have met with are of the middle of the seventeenth century, and are, like the earlier examples, composed of foliage and other ornaments executed in white and yellow glass, on a black or white ground, resembling in effect a Cinque Cento border^c.

Coats of arms, and other devices, were often inserted in pattern windows.

earlier patterns usually consist of a kind of interlaced work formed of narrow strips of glass: the Cinque Cento, and Intermediate, are principally composed of square, octagonal, and hexagonal pieces of glass of different sizes, with short narrow bits interspersed. These last patterns on the whole very much resemble the design of an inlaid oak floor.

^a A window of this kind may be seen in Bisham church, Berks.

^a This uninteresting kind of glazing was by no means uncommon even in the reign of Charles I., and was of still earlier invention; a representation of it occurs in a painting of the Seven Sacraments, by John Van Eyck, in the museum at Antwerp. [John Van Eyck was born in 1370, and died in 1465.] Its employment probably originated in a desire to conceal the leads as completely as possible, without regard to ornaments; for, in windows thus glazed, the horizontal lines coincide with those of

the saddle-bars, and the perpendicular lines with those of the standards, or upright bars. The perpendicular leads however arrest the eye more forcibly than the standards, which being placed outside the window, at a little distance from the glass,—the transparency of which is in general somewhat diminished by age,—are on this account seldom distinctly seen through the window.

^b i. e. about six inches.

The *smoothness* of the round glass alluded to in the text, may be noticed in earlier examples, as in the windows of the post inn at Oberlauchringen, a village between Schaffhausen and Wallshut, where this kind of glazing is employed to surround some Swiss heraldic glass paintings, bearing date, 1578, 1579, 1580, and 1587.

^c Some late borders are engraved in the French work on Auch cathedral, plate 4. This window is dated 1649.

In churches &c., the tracery lights of pattern windows, when not glazed with mere patterns of white glass, are often filled with coarsely designed masses of foliage &c., executed in white and yellow, or coloured glass.

7 and 8. PICTURES AND CANOPIES.

The pictures for the most part resemble those of the Cinque Cento style in their general composition, and arrangement. Greater importance was however given to the landscape backgrounds, and proportional efforts were made to produce atmospheric effect. Some of the paintings, those of the Van Linges in particular, have a cold appearance, from the great quantity of green foliage introduced in the background.

Large pictures having for their subjects, a landscape, or the interior of a building, and executed entirely in brown and yellow, were not uncommon even so early as the latter half of the sixteenth century^d. Their effect is generally dull and heavy, and always unsatisfactory. Designs executed in the same manner, but painted on round or oval pieces of glass of but a few inches in diameter, were very common in the middle of the seventeenth century.

The canopies in figure and canopy windows in general bear a smaller proportion to the size of the figure beneath, than was usual in the Cinque Cento style. Their details are either bad Gothic, or a mixture of Cinque Cento and Palladian. The hollowness of the niche is generally marked with a deep shadow. A curtain of coloured tapestry is usually hung behind the figure. The back of the niche above the curtain is often pierced with windows, through

^d See Lasteyrie, "Histoire de la Peinture sur Verre," plate LXXIII.

See also engravings of some of the

windows of Gouda church, Holland, in Weale's "Divers Works of Early Masters in Christian Decoration."

which a landscape is seen. A coat of arms is frequently inserted beneath the feet of the figure.

In Holland and England, after the Reformation, representations of sybils, and female saints, gave way to personifications of the Christian virtues; and subjects taken from Scripture supplied the place of those founded on mere legendary authority.

9. TRACERY LIGHTS.

The tracery lights of pattern windows have been already described*. Those of picture windows are sometimes filled with angels or saints, executed in colours, and placed on coloured or white grounds, or even with small pictures, or heraldry. The design in the lower lights, however, frequently extends into the tracery lights, which are in that case filled with representations of clouds, foliage, or the like.

10. HERALDRY.

Armorial bearings, consisting sometimes of the simple shield, but more commonly of the additional accompaniments of helmet, crest, and mantling, &c., are most usually found enclosed within little ornamented panels of a square or oval form, and inserted in pattern windows. The helmets, mantlings, &c., scarcely differ in form from those used in modern heraldry. Shields of arms, or crests painted on quarries, are not uncommon†. In some windows large achievements were introduced, extending into three or more lights without regard to the mullions. The colouring of the arms is produced principally by enamels,

* See an example in Lettu's "Description de l'Eglise Métropolitaine du Diocèse d'Auch," plate 4. The windows represented *ib.*, plates 1 and 2, seem to be

Cinque Cento. But plate 3 may be referred to as affording another example of the Intermediate style.

† See an example plate 26.

but until the beginning of the present century pot-metals were introduced as opportunities offered.

11. LETTERS.

The ordinary Roman letters were generally used throughout the style, until the revival of the Mosaic system, and the imitations of the Gothic glass within the last few years.

12. MECHANICAL CONSTRUCTION.

In the want of harmony between the picture and its lead-work, we perceive one of the false principles on which glass painting was conducted after the middle of the sixteenth century. Instead of availing themselves of the lead lines as giving force and precision to the painting, the artists of the Intermediate style appear to have regarded them as unsightly objects, which necessity alone compelled them to retain. The practice continued nearly as late as the middle of the seventeenth century of leading figures across, in horizontal lines, corresponding with the saddle-bars, and making the vertical leads take the course of the outlines; but as early as the commencement of the style, the glass of which the background and architectural framework of the picture was composed, was generally cut into uniform rectangular pieces, and so leaded together. The principle thus introduced of treating this part of the painting as if it were an object seen *through* a net-work of straight black lines crossing each other at right angles, was at length extended to the figures also, which were cut in pieces, and leaded together in perpendicular as well as horizontal lines like the rest of the window; a piece of glass equal in size to four of the ordinary rectangles being used when the face of the figure would otherwise have been crossed by the lead-work.

Coats of arms, for convenience sake, were generally leaded together in the direction of their principal division lines.

The narrow lead continued in use during the reign of Elizabeth, and does not appear to have materially increased in width even in the reign of Charles I.^s

The broad lead seems to have been introduced in pattern work towards the latter part of the seventeenth century, and was employed in glass paintings, together with several sorts of narrower leads, until within the last few years. It is still used in ordinary glazing^h.

. I find I have been misled by incorrect information in ascribing (ante p. 207, note d.) all but the two easternmost windows of the body of Magdalene college chapel, Oxford, to Joshua Price. It appears from the "Oxford Guide," (ed. 1840. p. 32,) that he painted only the two windows which I have excepted; the remaining eight having been painted in 1635. This clears up a difficulty which I could only reconcile by supposing that he had *imitated* in these eight windows, the style of the Van Linge school.

My faith in regarding the texture of the glass itself as a proof of date, is increased by this, I am ashamed to say, so tardy a discovery. For it was the texture of the glass, rather than the execution of these windows, that led me to make further enquiry.

^s I have noticed in a glass painting in Lydiat Tregoz church, Wilts,—and which I should ascribe to the Van Linge school,—some portions of the original lead-work, which from being in a rather complicated coat of arms, were on that account perhaps left undisturbed, the rest of the window having been re-leaded.

The leads are here scarcely a quarter of an inch broad in the leaf, and closely resemble modern fret lead.

^h Leads of different widths, are represented in Le Vieil's "L'Art de la Peinture sur Verre et de la Vitrierie," plate VIII.

CHAPTER II.

SECTION I.

EMPLOYMENT OF PAINTED GLASS AS A MEANS OF DECORATION.

THE art of glass painting was in all probability first employed in the embellishment of churches: and this, which still continues to be its most extensive and important application, is naturally that to which the attention is first directed. The appropriate decoration of churches, putting out of view other motives for the practice, is an object of great utility. It is desirable to render places of worship pleasing and attractive to the bulk of the people, and not politic to neglect their taste for whatever is showy, brilliant, and ornamental. A great point is gained by inducing persons to come within the walls of a church; though the motives which guide them thither should be idle or worthless, yet when they are once there, better thoughts may be awakened, and "fools who come to scoff, may remain to pray*."

But for the embellishment of our churches, and also for rendering ornament conducive to instruction, there does not seem to be, in general, any method readier, or more

* I do not mean to imply a belief either that really religious persons will be attracted to a place of worship by its splendour, or repelled from it by its poverty: but I certainly think that the proper embellishment of churches is not a trivial matter. An *inordinate* expenditure for this purpose is unjustifiable when so many other important works

remain to be done; but money thus applied, with discretion, affords an evidence of the earnestness of the rich for the cause of religion, and of their willingness to bestow a part of their wealth in such a way, as may render the poorest partakers of its benefits in common with themselves.

universally applicable than the ancient and long approved one furnished by painted glass. The only instances in which even the richest and most splendid painted window can be inapplicable, are those in which it would darken the building too much ; or, where the walls of the edifice are adorned with paintings. The grounds of the first objection are too obvious to require comment : with regard to the last, it should be remarked, that an equally advantageous display of rich glass paintings and mural paintings in the same building is impossible. A mural painting, however gorgeous, cannot vie with a glass painting in brilliancy, but must materially suffer by the contrast. The colours of a translucent painting will always overpower those of a picture which only reflects light. If therefore full effect is to be ensured to the mural painting, the means of a disadvantageous comparison should be removed, by rendering the paintings in the windows as little obtrusive as possible, both in design and colour. They should in fact be reduced to mere patterns, principally composed of white glass; even yellow should be sparingly introduced into them, and no other colours admitted more *positive* than pinks, and purples, &c. Thus the full power of painted glass cannot be developed consistently with the effective display of mural paintings^b; but inasmuch as the latter kind of deco-

^b The Munich artists seem quite aware of this palpable fact. The Maria Hilf church, in the suburb Au of Munich, whose windows are adorned with rich painted glass, has no fresco paintings on its walls, while the St. Ludwig's kirche, and the Hof Capelle, which are adorned with beautiful frescoes, have their windows almost entirely filled with white patterns; the little colour that is introduced into them being confined to the narrow border which surrounds the design. These windows in their general effect resemble plates of silver, and contrast harmoniously with the rich gilding and painting which decorate the interior

of the building. It is clear that figures executed in white and yellow glass, would not produce an effect as satisfactory as that of a mere pattern, owing to their greater tendency to distract the spectator's attention from the mural paintings.

I of course do not mean to say that glass paintings should be banished from a building whose walls are adorned, however elaborately, with ornamental patterns executed in paint, or gilding, or both. These patterns are not injured by the splendour of the glass, and they rather tend to increase its effect.

ration seldom extensively exists in a church, a painted window, however rich, is hardly ever out of place there, and it can be introduced when grandeur in the structure, and architectural beauty of any kind, are quite impossible.

The application of this mode of decoration, however, requires a good deal of consideration, and I therefore propose to offer a few remarks respecting it.

The first requisite in a painted window for a church is, of course, that it should be appropriate; that is to say, that it should be of a character suitable to a church, and not to a dwelling-house, or secular building. I think also that it must be conceded, that in a Protestant church, it should be of a Protestant character, and accordingly free from those legends and symbols for which Protestants have neither reverence nor belief; and a third requisite is, that if possible it should be rendered subservient to edification or instruction. A good pattern window is no doubt always preferable to a bad picture window, and in large buildings an intermixture of both pattern and picture windows is generally desirable, but I think as a general rule that patterns should not be used to the total exclusion of pictures, unless this is rendered expedient by economy, or such other circumstances as have already been adverted to*.

I do not suppose that there can be any prejudice at the present day, against the representation in churches of Scriptural subjects, or the portraits of saints. The established and recognised use of altar-pieces is of itself a sanction for

* Pattern windows in the Perpendicular style, may often be made the vehicle of some appropriate expression of prayer or praise, by inscribing short passages on diagonal strips of glass inserted between every two rows of quarries. It is a matter of indifference whether the inscriptions be written in an upward or downward direction, although the latter is most usual in ancient examples: the

best is that which enables the inscription to be most easily read. The puerile conceit that the former should be adopted, because "praise should ascend," is only equalled by Dogberry's mode of expressing his reverence for the name of God: "—— Write down that they hope they serve God, and write God first, for God defend but God should go before such villains!"

the introduction of pictures into windows; and to portraits of saints there seems to be as little objection. They are merely the representations of persons distinguished in Church history, who by their virtues, or services to religion, have earned a title to respect. No one can suppose that either portraits of saints or other scriptural subjects are introduced into a church with any other view than for the purpose of ornament, or possibly of example and instruction. But against the representation of unscriptural subjects, there is in Protestant minds a general and well founded objection. And here an imitation of some of the older glass paintings may lead into mischievous error. In these, legends of saints which are wholly or in part fabulous, and incidents in ecclesiastical history which rest merely on uncertain tradition, are frequently found. To adopt these subjects is to give a sanction and currency to fiction; they should therefore be rigidly excluded, and cannot be justified by the authority of ancient examples. A strict adherence to the principle of giving no sanction to fiction, might possibly exclude some worthies whose claim to veneration rests on no certain ground, but patron saints, though their history may be apocryphal, have a claim which it would be hard to dispute.

As a general rule, however, it is evidently better to select for representation, prophets and apostles, or persons who have really deserved well of mankind; a rule, which by no means confines us to those who have chanced to gain the distinction of canonization, but gives free admission to the Protestant martyrs, and the Fathers of the Anglican Church. There are some objects which though not legendary, are hardly of a Protestant character. The Romish veneration for relics gives to the instruments of the Crucifixion, such as the nails, the hammer, the ladder, the scourge, the crown of thorns, &c., an importance which Protestants do not

commonly allow them, and therefore we should not affect it by giving them a prominent place in our designs.

Representations of God the Father⁴, the Trinity, and

⁴ It appears from the report of the proceedings in the Star Chamber, Feb. 6, 1632, (State Trials, vol. i. p. 399,) against Henry Sherfield, Esq., recorder of Salisbury, for breaking a painted window in a church of that city, representing the Creation, that he was moved to do so, principally by a representation of God the Father, which he considered profane and idolatrous. His answer to the information contains so lively a description of the window that it is worth giving an extract from it. "He saith that this window and the painting thereon was not a true representation of the creation, for that it contained divers forms of little old men in blue and red coats, and naked in the hands and feet, for the picture of God the Father: and in one place He is set forth with a pair of compasses in His hands laying them upon the sun and moon: and the painter hath set Him forth creating the birds on the third day, and hath placed the pictures of beasts, man and woman, the man a naked man, and the woman naked in some part, as much as from the knees upwards, rising out of the man; and the seventh day he therein hath represented the like image of God sitting down and taking His rest: whereas the defendant conceiveth this to be false, for there is but one God, and this representeth seven Gods, and the sun and moon were not made on the third but on the fourth day, nor did the Lord God so create woman as rising out of man, but He took a rib of the man when he was in a deep sleep, and thereof made He the woman, in all which the workman was mistaken," &c.

Representations of God the Father are condemned by most of the members of the Star Chamber in giving their judgments; the only one who defends them is Neale, archbishop of York. "The question," he says, "is whether it is unlawful to express God the Father by any representation, I think it is not unlawful in itself. The eternity of Alpha and Omega doth appear in Christ, and Christ is the image of His Father."

Laud disapproves of such a representation. "As touching the matter in question I do not think it lawful to make

the picture of God the Father: but it is lawful to make the picture of Christ, and Christ is called the express image of His Father. I do not mean to say that the picture of Christ as God the Son, may be made, for the Deity cannot be portrayed or pictured though the humanity may. I do not think but the representation of God the Father, (as in the prophet Daniel He is called the ancient of days) hath been allowed (though erroneously) to be made like an ancient old man: and this the Lutheran party hold too: but whether it be idolatrous or superstitious or no, this I hold not to be the question, and I shall crave liberty not to declare mine opinion at this time, whether it ought to be removed."

Notwithstanding the opinion expressed by Laud in Sherfield's case, a similar representation of God the Father was among the subjects in the windows restored by him at Lambeth. The alleged setting up, or restoration of these windows, which took place the year after his translation to Canterbury, gave great offence, and was urged against him on his impeachment, though as he said "the repairing and setting up of the pictures was no high treason by any law." In his defence he alleges, among other things, that he had only restored the windows.

"The first thing the commons have in their evidence charged against me, is the setting up and repairing popish images and pictures in the glass windows of my chappel at Lambeth, and amongst others, the picture of Christ hanging on the cross between the two thieves in the east window; of God the Father in the form of a little old man with a glory striking Miriam with a leprosie; of the Holy Ghost descending in the form of a dove; and of Christ's nativity, last supper, resurrection, ascension, and others; the pattern whereof Mr. Prynne attested I took out of the very mass book, wherein he shewed their portraitures. To which I answer, first, that I did not set these images up, but found them there before. Secondly, that I did only repair the windows which were so broken, and the chappel which lay so nastily before, that I was ashamed

the Holy Ghost, are much better avoided. They cannot by any possibility convey to us an adequate idea of these awful mysteries of the Christian religion, and may excite very false notions in the minds of the ignorant, as well as supply materials for many a vulgar or profane jest. The same objection of course does not apply to the ordinary representations of our Saviour.

With regard to symbols, there may be much difference of opinion. My own is decidedly hostile to them. To some persons they are offensive, to most they are unintelligible, and in very few perhaps of those who do understand their meaning, are they capable of awakening any sentiments of piety or veneration. If any interest attaches to ancient symbols, it is an antiquarian interest; they are valued because they are old, and because they are witnesses to the religious feeling and modes of thinking of the age of which they are relics, and to which they carry back the imagination. But we know that the modern copies are an unreal mockery, the production not of a congenial mind,

to behold, and could not resort unto it but with some disdain, which caused me to repair it to my great cost. Thirdly, that I made up the history of these old broken pictures, not by any pattern in the mass-book, but only by help of the fragments and remainders of them, which I compared with the story."

His adversaries retorted upon him that "he might have new glazed the windows with unpainted glass, for the tenth part of that his painted windows cost him." (Rushworth, *Hist. Collections*, vol. iiii. p. 273. ed. 1680.)

From the report in the *State Trials* the Lincoln's Inn windows seem to have had a narrow escape. Laud in arguing that images in glass windows were not within the statute of Edward VI. as had been asserted, observes, "I could not but wonder that Mr. Browne should be so earnest in this point, considering he is of Lincoln's Inn, where Mr. Prynne's zeal hath not yet beaten down the images of the apostles in the fair windows of that chapel: which windows were set up new

long since that statute of Edward VI. And it is well known, that I was once resolved to have returned this upon Mr. Browne in the house of commons, but changed my mind, lest thereby I might have set some furious spirit on work to destroy those harmless goodly windows, to the just dislike of that worthy society." *State Trials*, vol. iv. p. 455. Laud, in one part of his defence, ("State Trials," vol. i. p. 884. fol. ed.) refers to Calvin [1. Inst. c. 11. § 12.] as approving the use of pictures which contain a history, although condemning "images in churches." It is worthy of remark that the painted windows in the cathedral of Geneva were suffered to remain and were existing as late as 1646. "The church," says Evelyn, "is very decent within; nor have they at all defaced y^e painted windows, which are full of pictures of saints; nor the stalls, which are all carv'd with y^e history of our B. Saviour."—Evelyn's "Memoirs," vol. i. p. 384. edit. 1827.

but a mere mechanical hand, and we turn from them with indifference or contempt. Unless we could revive the modes of thinking which rendered them interesting and impressive, symbols cannot be *better* than frigid and idle ornaments; and it may be questionable how far the employment of some symbols as mere *ornaments*, considering the peculiarity of their forms, can be justified on any principle of good taste.

If it should be thought that the objections which I have urged against symbols are without weight, I should still suggest that it is injudicious at the present day, when hostility to every thing savouring of popery has been awakened, to run the risk of raising a prejudice against so useful and appropriate a style of ornament as painted windows, by wounding this sensitiveness, even though we should think it excessive: no pretext should be afforded for a repetition of the quaint puritanical remark, that popery can creep in at a glass window as well as at a door. There surely remains a sufficiently wide field for the exercise of the art, and for the choice of subjects, the representations of which can shock no man's opinions,—subjects which belong to all time, being founded on incidents universally admitted as true by the whole Christian world, and whose importance is irrespective of the adventitious circumstances of fashion or opinion*. Abundance of these, rich in instruction and interest, and affording full scope for the skill and ingenuity of the artist, may be found in the parallelism between the Old and New Testaments',—The history of our Saviour's life,—His miracles,—most of the Parables,—the Acts of the

* Oliver Cromwell, who has the credit of having been a very zealous destroyer of "idolatrous pictures," preserved to this country the cartoons of Raphael, now at Hampton Court. These may be taken as examples of "*Catholic Art*," in the proper sense of the word.

' The relation of type and antitype is

pushed to a great extent by the old artists. It is often extremely fanciful and far-fetched: many instances of this may be seen in the Appendix (C). The modern artist will of course treat as typical those events and circumstances only which there is sufficient authority for considering to be so.

Apostles, &c.—Representations of such subjects cannot, I think, be without advantage. A picture is to the eye what language is to the ear;—or rather it seems to convey an idea in a more lively manner, and will excite more attention than a mere narration. Hence besides constituting splendid ornaments, painted windows representing scriptural subjects, may serve to refresh the memory,—to fix wandering thoughts,—to place a familiar idea in a new light,—to suggest some sentiment,—or awaken a spirit of enquiry. To produce such beneficial results, however, it is obvious that the painting should not be a mere conventionalism, or something incomprehensible except to the initiated; but that it should, as far as possible, be a faithful representation of truth and nature^c. Whatever subject is chosen, it should be treated by the glass painter in the same spirit as it would be by any other artist: that is to say, according to the best of his skill and information, and as if he were addressing himself to intelligent spectators, and not to the uncritical population of the middle ages, or to their immediate successors^h. As I shall recur to this topic, I shall only further

^c It was for instruction that pictures were anciently placed in churches. "*Picturæ ecclesiarum sunt quasi libri laicorum,*" an observation of which a striking illustration occurs in the following passage from the introduction to the third book of the treatise of Theophilus:—"Quod si forte Dominicæ passionis effigiem lineamentis expressam conspiciatur fidelis anima, compungitur; si quanta sancti pertulerint in suis corporibus cruciamina, quantaque vitæ æternæ perceperint præmia conspiciat, vitæ melioris observantiam accipit; si quanta sint in cœlis gaudia, quantaque in tartareis flammis cruciamenta intuetur, spe de suis bonis actibus animatur, et de peccatorum suorum consideratione formidine concutitur."

^h The impropriety of reproducing at the present day representations only fitted for the coarser minds and less cultivated taste of the middle ages, has not escaped the author of the following remarks,

which will perhaps have the greater weight as they are made by a zealous admirer of the arts and virtues of those times:—"Le moyen âge introduit volontiers le grotesque dans les scènes d'enfer. Mais c'est le grotesque terrible d'une époque qui croit, et pour laquelle le rire dans cette matière n'est qu'un assaisonnement effrayant de la cruauté. C'est donc bien moins du rire que du sarcasme. Il ne faut pas s'y méprendre et imaginer que les mêmes moyens puissent être encore de saison aujourd'hui que ce grotesque, au lieu de faire frissonner prêterait à une sorte de divertissement. On doit s'apercevoir que cette remarque pourrait être fort étendue. Il est telle représentation que j'ai développée avec quelque complaisance dans les vitraux de Bourges ou de Lyon, et que je désapprouverais très-formellement dans une œuvre du xix^e. siècle. Car il ne faut pas imiter servilement: c'est l'esprit surtout que nous devons chercher

H h

remark, that what would be condemned on canvass, ought not to be admitted on glass. It is as unnecessary and foolish to continue in modern glass paintings the extravagant drawing, anachronisms, and absurdities, of the mediæval glass painters, as it would be to imitate in a modern fresco the imperfect and rude execution of the Byzantine artists.

With regard to the introduction of armorial bearings into church windows, I think that the practice cannot be objected to on any stronger ground than that which has sometimes been made to the insertion of the donor's name, or any allusion to it. The objection is an over-refined one, though of very old standing¹. It appears to be founded on a morbid humility, which is not acted upon in other cases, and if followed up, would exclude monuments from our churches altogether. Armorial bearings only supply an additional memorial of the person who caused the work to be constructed, and in after times may be useful in establishing a date. In many ancient windows the existence of a shield of arms has contributed to determine the period of its construction. If armorial bearings are admitted at all, I see no greater impropriety in placing them in an east window than in any other; even granting, for argument's sake, that we are bound to regard the eastern part of an ecclesiastical edifice with peculiar reverence. Our Roman Catholic ancestors certainly had no scruples of this kind; for the insertion of coats of arms in the east windows of cathedrals and churches is of far too frequent occurrence

à saisir dans les monuments des âges de foi."—*Monographie de la Cathédrale de Bourges*, p. 236, note.

¹ See Appendix (D).

That armorial bearings were sometimes placed in churches in an humble spirit is apparent from the will of Viscountess L'Isle (dated 1500), by which she directs the arms of her husbands and herself, to be set up in the high rood-

loft of the church of St. Michael, "to the intent that our souls by reason thereof may the rather be there remembered and prayed for."—Sir H. Nicolas's *Testamenta Vetusta*, p. 466. It is unjust, therefore, in the absence of any proof, to assume that armorial bearings are necessarily marks of ostentation and vanity, and to exclude them accordingly from churches.

to be regarded as an exception to any general rule of exclusion: nor can the practice be considered as an innovation, and a departure from ancient propriety, since examples of it are quite as frequent at the close of the fourteenth century as at any other period, and possibly may be met with of a still earlier date.

The importance of church decoration has drawn out my remarks on this application of glass painting to a considerable extent. Its employment in secular buildings calls for fewer observations. It evidently forms an ornament which may occasionally be introduced into them with great advantage. Painted windows, and especially pattern windows, composed merely of *round glass* with a painted border, would in many domestic buildings be found as effectually to exclude the sight of some disagreeable object, as panes of common *ground*, or *corrugated* glass, besides being infinitely more ornamental. Painted glass is always appropriate in the windows of the halls of colleges, corporations, and other public edifices; its richness and colour being of course regulated by the general character of the building, and the number of paintings which adorn its walls, &c. And here, when it is wished to go beyond a display of mere heraldry or ornamental patterns, there exists a wide choice of subjects. Abundance will suggest themselves in historical incidents, and in such as are of local, or family interest; portraits, if they can be represented, are not out of place, and in short any subject proper for a picture may be adopted, provided it is capable of being treated within the limits imposed by the true principles of glass painting^k. Here too is the most appro-

^k "There is besides Nottingham, an auncient house called Chilwell, in which house remayneth yet, as an auncient monument, in a great windowe of glasse, the whole order of plantyng, prugning,

stamping and pressing of vines."—Barnabe Googe's "Foure Bookes of Husbandry," Lond. 1578, quoted in the notes to Warton's "English Poetry," ed. 1824, vol. ii. p. 265.

priate field for the introduction of heraldic achievements of whatever description, cognizances, and mottoes. Mere armorial bearings, with their accompaniments of mantlings, &c., are capable of being rendered highly ornamental, as may be seen at Ockwell's House, Berks. It is scarcely necessary to observe, that the remarks which have previously been made on the treatment of subjects, with regard to the improved taste and knowledge of the present day, are in their essential principles not less applicable to historical than to scriptural glass paintings.

Painted windows have of late years been frequently erected as memorials of the dead. This is by no means an innovation, but merely a revival of an ancient custom¹: and it is an application of the art of glass painting which has many claims to be generally adopted.

The sum which will procure a handsome painted window, would produce a very plain or indifferent tomb; and the window will form an ornament to the church, which, if it is a building of any architectural pretensions, is not unfrequently disfigured by the introduction of stone monuments. Few things are more misplaced than tablets, urns,

In the sixteenth volume of Boswell's "Shakspear," a plate is given of a window at Betley in Staffordshire, on each quarry of which, a morrice dancer is depicted. Curious scenes from domestic life, as well as subjects from classical history, often occur in the little circles and ovals of glass which were introduced into the windows of secular buildings in the sixteenth century. The story of Cupid and Psyche from Raphael's designs, was represented in the windows of the château d'Ecouen. They were executed by Bernard Palissy. The designs are given in outline in Lenoir, "Musée des monumens Français. Hist. de la Peinture sur Verre," Paris, 1803. One of them is also engraved in Lasteyrie, "Hist. de la Peinture sur Verre," plate LXXIII.

The windows described by Chaucer, in the following passage, can be looked upon as imaginary only, as it occurs in

the relation of a dream: but it is not too much to infer from it, that subjects of this kind were represented in the glass paintings of his times.

"And sooth to sayn, my chamber was
Full well depainted, and with glass
Were all the windows well y-glazed
Full clear, and not an hole y-crazed,
That to behold it was great joy:
For wholly all the story of Troy
Was in the glazing y-wrought thus,
Of Hector, and of King Priamus;
Of Achilles, and of King Laomedon,
And eke of Medea, and of Jason;
Of Paris, Helen, and of Lavine."

—"Book of the Duchess," as quoted in Ellis' "Specimens of early English Poets," vol. i. p. 220.

¹ This is sufficiently proved by numerous inscriptions either still remaining in windows, or preserved in antiquarian books. See Appendix (E).

or the like on the columns of a building, and even when they occupy merely the walls, they are very frequently out of character both with the building and with each other, and present ill-arranged groups of statues and carving, like those in a sculptor's workshop. Further, if the object of a monument is to attract attention, and thus preserve the memory of the person to whom it is erected, this end can hardly be more effectually obtained than by a painted window, which even a careless spectator is not likely to overlook; whereas even well-executed marble monuments are often of necessity placed out of sight.

It may naturally be objected that glass is too frail a material for a monument. Experience, however, sufficiently refutes this objection. The quantity of ancient glass which has been preserved in this country, in spite of its having been exposed at two different times to the violence of religious zeal, as well as treated with intentional neglect^m, hardly less injurious in its consequences, shews that it is not necessarily of a perishable nature. Much has perished, but so have innumerable monuments in brass and marble: and perhaps it may be a question whether the work of the glass painter has after all fared so very much worse than that of the sculptor: however this may be, the simple fact that there are in existence windows five or six centuries old, sufficiently proves that there is no objection to painted glass on the ground of its want of durability.

In conclusion I must state that a monumental window is

^m "As for churches themselves, belles, and times of morning and evening praier remain as in times past, saving that all images, shrines, tabernacles, rood-loftes, and monuments of idolatrie are removed taken down and defaced: onlie the stories in glasse windowes excepted, which for want of sufficient store of new stuffe, and by reason of extreame charge that should grow by the altera-

tion of the same into white panes throughout the realme, are not altogether abolished in most places at once, but by little and little suffered to decaye, that white glasse may be provided and set up in their roomes."—Harrison's "Description of England," (temp. Q. Elizabeth,) prefixed to Hollingahed's "Chronicle," book ii. ch. 1. p. 233.

not confined to any particular design or subject. Pattern windows, or windows containing portraits of saints, or other scriptural pictures, are equally appropriate. The addition of a short inscription shewing the intention with which the window is erected, is all that is required to render it monumental. Ancient windows commonly introduce a portrait of the deceased, or of the donor of the window, and it has been made a question whether this practice should be adhered to. As to the propriety, strictly speaking, of a portrait, there is evidently no difference between a painted representation of an individual, and a sculptured one. But considering the limited power possessed by the glass painter of imitating nature, it strikes me that if a portrait is desired, this object will be better attained by means of marble, or of a fresco painting. But indeed no further allusion to the deceased is required than the mention of his name in an inscription, or the insertion into the window of his armorial bearings.

SECTION II.

ON THE TRUE PRINCIPLES OF GLASS PAINTING.

EVERY method of painting, from the nature of the material employed in it, is more or less fit than others for the production of certain effects. The capabilities of some kinds of painting are greater than those of others, but whichever an artist has occasion to adopt, it is evident that his efforts should be confined to a skilful application of the means which it places at his disposal. He should endeavour to develop its resources to the fullest extent ; but he ought not to seek excellencies which are incompatible with

its inherent properties. Failure must necessarily result from an attempt to produce in one mode, effects which are only attainable in another. Hence a great part of the artist's skill consists in the invention of a design, and mode of execution, calculated under the circumstances to display to the best advantage the excellencies, and conceal the imperfections, peculiar to that method of painting which he is called upon to employ.

Obvious as the preceding remarks may appear, they will be by no means superfluous if they serve to call the attention of the glass painter to the consequences which result from the nature of the material on which he paints ; since it is to a disregard or defiance of these consequences that the erroneous system which long prevailed in the practice of the art, and possibly its decline, are mainly to be ascribed. The artist who undertakes to practise glass painting should bear in mind that he is dealing with a material essentially different from any with which he has hitherto been familiar, and his first object should of course be to obtain a thorough knowledge of the peculiarities and of the extent of the available means of his art ; of the excellencies which ought to be developed, and the defects which should be concealed. The nature of these excellencies and defects, and the best modes of displaying the former and remedying the latter as far as circumstances will allow, will form the subjects of the following enquiry.

The chief excellence of a glass painting is its translucency. A glass painting by possessing the power of transmitting light in a far greater degree than any other species of painting, is able to display effects of light and colour with a brilliancy and vividness quite unapproachable by any other means.

On the other hand this same diaphanous quality is the source of certain defects, such as the limited scale of colour,

and of transparent shadow, observable in a glass painting, of which its inherent flatness is a necessary result.

These peculiarities will be found to restrict the successful application of glass painting to a particular class of subjects.

Another peculiarity of a glass painting, which has the same tendency, is its mechanical construction. Lead-work and saddle-bars, or some other mechanical contrivance, have been shewn to be essentially necessary for the support of the glass, and to enable the painting to discharge one of its most useful functions, the exclusion of the weather. But the metal-work, on account of its opacity, cannot be concealed: and in whatever manner it may be arranged, it causes the picture to be traversed by a number of black lines.

These remarkable features of a glass painting then render it unfit for the representation of certain subjects. Such as essentially demand a picturesque treatment, are better suited to an oil, or water colour painting, than to a glass painting, the pictorial resources of which are more limited. A glass painting is incapable of those nice gradations of colour, and of light and shade, which are indispensable for close imitations of nature, and for producing the full effect of atmosphere and distance. And even if this defect could be overcome, the lead or other metal-work would infallibly ruin the picture. For these reasons it would be improper to select a landscape, for instance, as the principal subject of a glass painting. A subject of this description, though it might form a valuable auxiliary as a background to a design, would, if executed by itself, only betray the defectiveness of the art in its flatness and want of atmosphere. The same objection equally applies to long perspective views of interiors, and the like. To these may be added groups of figures, or even single figures requiring

a great display of foreshortening: and compositions which do not simply consist of figures confined to the foreground, but comprise distant groups carried far into the background of the picture.

The subjects which appear best suited to glass paintings, are those which, when executed, are of themselves pleasing objects, and are favourable to a display of the translucent qualities of glass. Of this kind are ornamental patterns, and a variety of other designs capable of being properly represented in a simple, hard, and somewhat flat manner; by broad masses of stiff colouring, hard outlines, and vivid contrasts of light and shade. A group sculptured in bass-relief would, for example, afford an excellent model for a glass painter, on account of its want of apparent depth, and the means taken to counteract as far as possible this cause of indistinctness,—the simplicity of the composition namely, and the sharp lights, and broad shadows of the figures. Its landscape background might indeed be almost directly copied in a glass painting*.

I will therefore assume that subjects of the kind just indicated as best suited to glass paintings, should alone be selected by the glass painter. In his treatment of these subjects moreover he is, I conceive, bound to adopt such a course as will exhibit the translucency of the glass as much as circumstances will reasonably allow.

In a pattern this object is of easy accomplishment: but in a picture glass painting the union of transparency with the effect of atmosphere, and apparent depth, so far as

* The raising of Lazarus, by Sebastian del Piombo in the National Gallery, would form, with a little modification, a good design for a glass painting; as would also Raphael's cartoons. My attention has been directed to these last works by the Appendix, No. 2, to the fifth Report of the Commissioners of

Fine Arts, Lond. 1846, pp. 13, 14. This Appendix contains a number of suggestions most valuable to the glass painter, and is worthy of an attentive perusal. Had I fortunately met with this work before I commenced the present section, it would have saved me some time and trouble.

these latter qualities are attainable, is often attended with difficulty. I by no means entertain the opinion that a glass painting is to be estimated merely in proportion to its sparkling brilliancy, and the beauty of its colours, without regard to its pictorial qualities. If this were so, pattern glass paintings should always be preferred to picture glass paintings; and geometrical patterns formed of plain pieces of glass, to patterns enriched with painting. I only assert that the best picture glass painting is that which most fully combines the qualities of a good picture, with a display of the diaphonous property of glass. It ought, no doubt, to be a *translucent* picture; but it should, amongst other things, exhibit the greatest effect of atmosphere and distance that can reasonably be imparted to a glass painting, and which so materially promote the distinctness of the design. The accomplishment of this end must necessarily involve a diminution of the brilliancy of the glass in some parts of the picture. The extent of this obscuration and the mode by which it may be effected with the least sacrifice of the brilliancy of the work, will form a principal part of the present enquiry.

In order to render available the translucent quality of glass to the utmost extent under every conjuncture, the artist should, I think, adopt the Mosaic system of glass painting; because under this system the most brilliant and powerful effects of light and colour can be produced. This will at once appear on examining the glass which forms the raw material of a Mosaic glass painting. Whether it is white or coloured it is equally transparent; but this is not the case in general with the glass either of an Enamel, or a Mosaic Enamel glass painting. In these paintings such portions of the picture as are coloured either wholly or in part with enamels, are not so transparent as the white parts. Hence, *cæteris paribus*, a Mosaic glass painting,

the whole of whose basis is equally transparent, must be more diaphonous than an Enamel, or Mosaic Enamel glass painting; the ground-work of which is of different degrees of transparency, varying from that of white glass, to that of the dullest kind of enamel coloured glass.

It may be said that the Mosaic system does not possess so extended a scale of colour as the Enamel system; and that it is not capable of producing such rich colouring as the Mosaic Enamel: but its inferiority in these respects to the other systems is but trifling, and is more than counter-balanced by its superiority over the Enamel in strength of colour, and over the Mosaic Enamel, as well as the Enamel, in point of brilliancy. The truth of this will, I think, be established by comparing together a Cinque Cento picture glass painting, and any ancient or modern example of the Enamel, or Mosaic Enamel systems. It will be found that the Cinque Cento glass painting is on the whole hardly if at all inferior to the other works in pictorial effect^o: and that although its colouring may possibly not be quite as rich or so varied, as, for instance, that of a Mosaic Enamel glass painting executed by the Van Linges, it is infinitely more vivid and powerful than that of an Enamel glass painting; whilst at the same time the whole picture is far more brilliant and transparent than either of the others.

It may also be urged as an objection against the Mosaic system of glass painting, that the employment of a separate piece of glass for almost every colour of the design, renders the use of harsh outlines throughout the picture unavoidable,

* It would, I apprehend, be impossible to meet with any Enamel or Mosaic Enamel glass paintings, not excepting those of the modern French school, which are the best of their kind, more effective as pictures than, for instance, the four Cinque Cento windows of the chapel of the Miraculous Sacrament, Brussels

cathedral; the Flemish glass in the apse of Lichfield cathedral; or the choir windows of St. Jacques church, Liège: all which works are pure specimens of the Mosaic system, and are far more brilliant and translucent than any Enamel or Mosaic Enamel glass paintings that I can mention.

and consequently that it is less favourable than the Enamel system for pictures. But this objection does not appear to be well founded.

It has already been stated that no glass painting, unless it be of very small dimensions, can be constructed without the aid of metal-work ; and that wherever metal-work is used there will be the appearance of black lines. To this law an Enamel glass painting affords no exception : if of large dimensions it must be composed of many pieces of glass, and these must be secured in their places either simply by means of leads, or in a metal frame-work. The construction of the work does not indeed require that the leads or metal frame-work should follow the course of the outlines of the picture, but this is practically the only difference between an Enamel, and a Mosaic glass painting. The black lines cannot be got rid of. In some Enamel glass paintings an attempt is made to avoid the effect of the metal-work ; either by using pieces of glass of the largest possible dimensions, and moulding the lead or other frame-work to a few of the principal outlines of the picture, or else by making it take a course altogether independent of the design, and cut the glass into a number of uniform rectangular panes. But neither of these expedients appears to constitute any improvement upon the method necessarily adopted in a Mosaic glass painting, of throwing the lead-work into all the principal outlines of the picture, and strengthening it with saddle-bars. For besides the inconvenience resulting from the use of very large pieces of glass, the first-mentioned mode is objectionable on account of the inharmonious prominence which the opacity of the metal-work imparts to the particular outlines it follows : a prominence the more striking on account of the weak colouring of an Enamel glass painting. And the second mode, though

perhaps less objectionable than the first, is attended with this disagreeable effect; that the close net-work of black lines, through which the picture appears to be seen, distracts the attention from the painting itself.

The construction of a Mosaic glass painting appears indeed to be on the whole more favourable to the effect of the picture than that of an Enamel glass painting. For the lead-work being generally and pretty equally diffused over the whole design, is on that account less noticed than if its course were confined only to a few particular outlines. I may also add that the colouring and execution of a Mosaic glass painting greatly tend to disguise the lead-work. The saddle-bars must however be admitted to be very prominent objects, though from the style of the painting, they are perhaps less prominent than the lead or metal-work of an Enamel painting. The eye soon becomes reconciled to them. They are indeed so essential to the stability of the lead-work that their absence would only suggest a disagreeable feeling of weakness and insecurity. In some respects they assist the effect of the picture, diminishing by contrast the apparent width of the leads, and throwing back the picture, with the design of which they in no wise interfere. It has been already remarked in a former part of this book, that the metallic frame-work of an Early English medallion window decidedly improves the effect of the glass, by rendering the main divisions of the design more distinct.

From these considerations, I think I am justified in concluding that the Mosaic system of glass painting is, on the whole, the best system to be adopted. I shall now proceed to enquire into the proper application of this system, particularly with reference to the developement of the resources of the art of glass painting, consistent with a due preservation of its translucent powers.

An attention merely to form, contrast of colour, and magnitude of parts, will suffice to ensure to some subjects of the glass painter's art, proper distinctness and effect,—as, for instance, patterns, either simply composed of various pieces of plain glass, or enriched with ornaments added with the pencil. And in these subjects there is no difficulty in exhibiting the transparency of the material to its greatest extent. But in a picture glass painting,—especially one consisting not of a single figure, but of a group,—though the nature and treatment of the subject itself, the size of the different objects represented, and the arrangement of its colouring, may all powerfully contribute to produce distinctness; full effect cannot be given to the work without having recourse to strong shadows, contrasted with brilliant lights.

A proof of this is afforded by all the picture glass paintings which were executed previously to the beginning of the sixteenth century. They are but brilliant Mosaics. Their universal defect is, that, like patterns, they are as flat in appearance as the glass actually is on which they are painted. A single figure placed under a canopy, owing to the simplicity of the design, the breadth and contrasts of its colouring, and the magnitude of its parts, usually preserves a certain degree of distinctness: but a group of figures is but a mass of confusion when seen from a little distance^p. This defect arises in general not from any vice

^p Some persons for whose opinions I entertain great respect, regard this very indistinctness as a beauty rather than as a defect in a glass painting. I readily admit that the imagination may be powerfully excited by the contemplation of a mere assemblage of brilliant and harmonious tints, such for instance as the east window of York minster presents, when viewed from the choir: yet I cannot but regard as defective a picture glass painting which creates only such indefinite

impressions. A pattern glass painting which produces this result is admirable, for it does not profess to do more when seen from a distance; but surely the fundamental principles of art must apply to glass pictures equally as to all others; and in these last it is always an essential condition that they should appear distinct from the furthest point whence they are intended to be viewed. On this account the east windows of Gloucester and Winchester cathedrals, and the west win-

in the composition,—for the design of most medieval groups is admirably suited to the nature of a glass painting,—nor from a bad disposition of colours, for the effect is the same in a late picture, where the more positive tints are confined to the foreground, and the retiring colours to the background; as in an early one, in which no such rule is followed;—nor yet from the want of powerful outlines, for an Early English group is as indistinct as a Perpendicular one;—but from a too timid application of shading. It is to the power of the shadows that the superior distinctness and effect of a Cinque Cento glass painting are chiefly attributable.

Since then powerful shadows are the principal means of producing distinctness in a glass painting, and as it is essential that the work should also be both brilliant and transparent, it becomes important to ascertain, if possible, the mode by which a union of these requisites may be best effected.

The greater the depth of the shadow, the greater no doubt will be the force given to the picture; but the brilliancy and general transparency of the picture are in proportion to the brilliancy of its lights, the transparency of its shadows, and the relative quantities of light and shade. The picture will be dull, if its lights be not kept clear and bright, whether its shadows be strong or weak; opaque if its shadows be not transparent, notwithstanding the brilliancy of its lights; and heavy if the aggregate volume of the shadows greatly exceeds that of the lights.

dow of St. Gudule at Brussels, are better adapted in design to the situations they occupy than the east window of York minster.

Michael Angelo, in painting the ceiling of the Sistine chapel, increased the size of the figures in the compartments he executed last, having observed—as is suggested in a note by Mr. Eastlake to

Kugler's "Handbook of Painting," vol. i p. 206; and more pointedly in the second Appendix to the "Fifth Report of the Commissioners of Fine Arts," p. 12—that the figures in the former compartments were too diminutive to produce the desired effect from the floor of the chapel.

The dulness and opacity, arising from a want of clear lights, and transparent shadows, are exemplified in most of the glass paintings which were executed after the middle of the sixteenth century, including the productions of the modern Munich school. And the heaviness occasioned by a disproportionate preponderance of shadow may likewise be remarked in many favourite subjects of the above period, such for instance as large perspective views of the interiors of buildings : and in landscapes and other pictures in which vast masses of dark clouds are introduced : of which the Nativity, at New college chapel, and the Last Judgment, at Magdalene chapel, Oxford, may be cited as examples.

From these defects the glass paintings of the first half of the sixteenth century are in general free, although they exhibit shadows as deep and powerful as those of any subsequent works. I therefore cannot better illustrate the present subject than by examining the execution of the glass paintings of this period.

The shadows of every glass painting executed according to the Mosaic system, are principally produced by the application to the glass of a coat of enamel brown ; varying in thickness according to the required depth of the shadow. And it is on the superficial extent and texture of this ground, that the brilliancy and general transparency of the picture depend. For the brilliancy of any piece of glass may be as effectually destroyed by spreading over it a thin coat of enamel brown, as a coat of any other enamel colour : and since the enamel brown partakes of an opaque nature, a very trifling increase in the thickness of the coat will, if the colour be smoothly applied, reduce the glass to a state of dulness, or even deprive it of all transparency whatever. It is therefore essential to the brilliancy of the glass painting, that certain portions of the glass should be left for the free transmission of light, quite unincumbered with any

enamel brown. These portions, being the brightest, may be generally assigned to the strongest lights of the picture : and in these lights the brown ground must be entirely removed from off the glass. It is also essential to the complete transparency of the shadows,—especially when the painting is intended to occupy a distant position,—that the enamel ground of which they are composed should be very coarsely granulated or stippled. A coat of enamel brown smeared smoothly and evenly on the glass, will exclude the light more completely in this state than after it has been rendered irregular in its texture by the process of stippling. For this process collects the colour into little lumps or dots, leaving interstices between them less loaded with colour, and consequently more pervious to the rays of light than any part of the ground was before it was stippled. A stipple shadow is therefore always more transparent than a smear shadow of equal depth ; and glass paintings entirely executed with stipple shading, are consequently on the whole more transparent than those which are entirely executed with smear shading. Some analogy may in this respect be perceived between glass paintings executed with stipple, or with smear shadows, and line and mezzotint engravings ; in which a perfectly opaque matter,—printing ink,—is employed. The degree of transparency exhibited by the print as essentially depends on the light which is reflected back from the white paper forming the interstices between the black particles of the ink, as that of the glass painting depends on the light which is suffered to pass through the less dense interstices of the brown ground. These interstices are more regular and better defined in a line engraving than in a mezzotint, and to this the former owes its superior clearness and transparency.

It will be found on examination that in all glass paint-

ings of the first half of the sixteenth century, equally as in the earlier Perpendicular examples, the shadows in half tint are abruptly terminated, and the vivid lights of the picture formed by entirely scraping off portions, sometimes considerable ones, of the brown enamel ground. The shadows, especially in the later examples, are always very coarsely granulated by stippling; and it will be observed, as might be expected, that in proportion to the coarseness of the grain of the enamel ground are the apparent clearness and juiciness of the shadow. The mode in which the shadow was applied had also a very favourable effect on its transparency. The ancient artists appear never to have applied more than two coats of enamel to the same side of the glass. They seem to have first spread a thin stipple ground of enamel brown all over the glass, and after having cleared the bright lights out of it, to have heightened the depth of the shadow by a thicker coat of colour, decreasing in depth as it approached the lighter parts of the picture, where it became insensibly blended with the shadow in half tint, formed by the first ground of colour. This second coat was very coarsely stippled, and it would seem as if its moisture softened the first coat, and caused it also to be disturbed by the stippling; for the stippling of the second coat appears, in all the specimens I have examined, to have gone right through to the glass. This causes the stipple shadows of an ancient glass painting to be in general clearer and more transparent than those of a modern glass painting, which are usually composed of several distinct coats of paint, some not unfrequently being applied after the others have been actually burnt in: a practice which has a tendency to fill up the lighter interstices of the ground, and to counteract the effect of the stippling. The ancient artists were often accustomed to increase the depth of the shadows in

the darkest parts, by a coat of well-stippled enamel brown applied to the opposite side of the glass, and which was made gradually to diminish in strength as it approached the lighter parts of the shadow; but this proceeding for some reason or other does not produce dulness like that occasioned by a third coat of colour on the same side of the glass. They were also in the habit of further strengthening the deeper shadows with a hatching of black lines: a mode by which the transparency of the shadow was preserved whilst its depth was increased, the interstices between the lines allowing a passage for the light.

But whilst the artists of the first half of the sixteenth century thus successfully combined the use of brilliant lights, and of powerful and yet transparent shadows, they were careful to avoid the effect of heaviness by duly proportioning to each other the aggregate quantities of light and shade in the picture. It is difficult to determine the relative amount of these quantities, which varies in almost every case; nor do I take upon myself to define it. It will be enough if I succeed in pointing out, though imperfectly, the method by which the ancient artists contrived to produce in their works, principally by means of light and shade, sufficient distinctness without heaviness.

I have already described in the course of my remarks on the Cinque Cento style, the method usually adopted by them to confine within certain limits the masses of deep shadow, to the use of which their works owe their striking effect. I allude to the favourite practice of placing the picture, or scene to be represented, under a canopy or bower, or beneath an archway.

When the first-mentioned arrangement is adopted, a great mass of light is produced by keeping the front of the head of the canopy, or bower, clear and bright, no more shadow being there employed than is sufficient to give

effect to the mouldings and other ornaments represented on it. The side jambs or pillars of the canopy, and the front of its base, if it have a base, are likewise but slightly shaded. This mass of light is strongly contrasted with the deep shadow which is spread all over the interior of the niche or recess, and which serves both to give projection to the figures, and to throw back the bright landscape which is shewn through the open-work, or windows of the recess, behind the figures. The same principle of alternately employing masses of light and shade, is shewn in the treatment of the figures themselves, which commonly have one side strongly illuminated, and the other in deep shadow; the shaded side of one figure being relieved against the bright side of another, or the bright background displayed in the distance. It will be observed that the mass of shadow which covers the interior of the recess, and which constitutes so important an element of the composition, is prevented from spreading itself too far in any direction, by the figures, the side pillars, and front of the canopy. The shadow is generally relieved in its darkest part, which is immediately under the hood of the canopy, by reflected lights cast on the groining of the recess. Examples of this arrangement are too common in Cinque Cento work to require notice. I may however mention as good Perpendicular examples of the sixteenth century, the canopies in Munich cathedral, which have been already particularly described in the Perpendicular style; and the windows of Fairford church, Gloucestershire, which contain the figures of the twelve apostles. In the windows last mentioned it is worthy of observation how skilfully the artist has availed himself of the white scroll inscribed with a portion of the Creed, which is disposed about the head of each figure^a as

^a The portion of the Creed written on each scroll is given in the "History of

Fairford Church," Cirencester, 1841, p. 9, as well as the name of the Apostle

an additional contrast to the shaded interior of the niche ; and possibly as a means of breaking up what otherwise might have proved a too extensive mass of shadow.

The other arrangement,—that of placing the group or picture in front of, or underneath an archway,—does not differ in principle from that which has just been described, though it admits of stronger contrasts of light and shade, and consequently of more vivid effects. The whole front face of the arch presents a mass of strong light. This is contrasted with the dark shade of the soffit and inside of the arch ; and this in its turn is contrasted with the bright light, which streaming through the aperture of the archway, is displayed behind the group, and serves as a contrast to some of the dark shadows of the figures. The figures have their bright sides and their dark sides, and these alternate masses of light and shade are contrasted with each other, with the light and shaded parts of the archway, and with the light issuing through it. Thus the dark interior of the archway—forming a mass of shadow the extent of which is limited—separates the mass of light on the front of the arch, from the light which apparently passes through the arch, and most effectually throws back the distant landscape represented as seen beyond the arch. I should add that the deep mass of shade in the soffit of the archway, is relieved by strong reflected lights cast against the ornaments sculptured on its surface, and sometimes more effectually by a festoon of fruit or flowers, hung across the front of the arch, and of course equally exposed to the influence of a powerful light. A similar festoon, but in deep shadow, is not unfrequently suspended across the further side of the arch, and affords an additional contrast to the mass of light under the arch.

around whose head the scroll is placed. The majority of the sentences are divided and appropriated, in a manner dif-

ferent to that set forth in the chapter "De symbolo Apostolorum," Gavanti Thesaurus, Cologne, 1705, p. 49.

The effect of both these arrangements is materially promoted by the disposition of the colouring; but this has already been sufficiently described in the course of the Perpendicular and Cinque Cento styles, and a reference to it now would only embarrass the subject^r. One of the best and most simple examples of the last arrangement is afforded by the windows of the chapel of the Miraculous Sacrament, Brussels cathedral, which have already been noticed. These windows, and the remark equally applies to many others of the same class, are indeed true glass paintings. They exhibit the fullest atmospheric effect that perhaps can be produced by the art; and they differ from all other paintings not only in brilliancy, but in their general nature and arrangement. The statuesque character of the figures perfectly accords with the architecture which surrounds them, and which whilst serving as an ornamental setting to the picture, is in some instances intimately connected with its design. At the same time the broad stiff colouring of the picture, its decided outlines, and its sharp contrasts of light and shade, perfectly harmonize with the natural stiffness of a glass painting, arising from its mechanical construction.

The principle of confining the principal masses of shade within proper limits, may also be observed in those Cinque

^r The colouring of a glass painting is no doubt a point which must be carefully studied by the artist; but it is one upon which little light can be thrown by a written essay. The proper selection and arrangement of colours can only be learnt by studying ancient specimens of glass painting, and by practice. The colours of a glass painting differ in many respects from those of an oil painting. They have the property of intermingling their tints with each other, so that raw colours, if placed side by side, will often produce a very harmonious effect without the assistance of the glass painter. Ruby, and a light pink glass, preserve their distinctive tints at a greater distance than any other colours. Yellow,

and especially stained yellow, is more apt to diffuse itself than any other tint. A very slight apparent variation in the tint of particular colours will prevent their harmonizing. Hence the difficulty of reproducing the same design in the same colours; for differences in tint may often be observed in glass made of the same materials, at the same manufactory, and on the same day. This difficulty in obtaining the same tint of colour in glass may perhaps have prevented the ancient glass painters from appropriating particular colours to particular subjects,—as ecclesiastical dresses, &c. In copying an oil painting in glass, the artist will in general be obliged entirely to recast its colouring.

Cento picture glass paintings which are not relieved by being set in an ornamental frame-work of architecture. An excellent instance of this is afforded by the east window of St. Margaret's church, Westminster. The painting of the Crucifixion, which occupies the three central lower lights of a five-light window is relieved and framed as it were by the figures and canopies which occupy the outer lights, and the angels and badges with which the tracery lights are filled. The principal subject is thus sufficiently supported, without the intervention of great masses of clouds, or an extended landscape, which has been shewn to have been resorted to in later times for this purpose. I might also refer to many similar examples*.

I have thus endeavoured, however imperfectly, to point out the great principle adopted in the first half of the sixteenth century, of preserving the brilliancy and general transparency of the glass, and of promoting the distinctness of the design by the use of clear lights, transparent shadows, and strong contrasts of light and shade. But in order that we may appreciate the superior execution of the glass paintings of that period, I propose to make a few observations on the execution of those which were painted subsequently to the middle of the sixteenth century.

* The light which falls upon the side figures and canopies in the St. Margaret's window, in either case proceeds from one side of the picture, so that the bright side of each figure is contrasted with the dark side of the niche, and vice versa. The painting of the Visitation, in one of the windows of the south aisle of the choir of York minster,—to which reference has already been made (ante, p. 209), though inferior as a glass painting to many Cinque Cento examples, shews that the principles of glass painting were not forgotten even in the latter part of the 16th century. The original painting from which the glass was designed (of which I have seen a copy in the possea-

sion of Mr. Ward, the glass painter), abounds in deep masses of shadow, which do not appear in the glass painting. Their exclusion no doubt arose from the conviction that though a source of beauty in an oil painting, such extensive masses would only have rendered the glass painting heavy. The colouring of the oil painting has also been departed from in the glass; a step probably rendered necessary by the altered character given to the design by the exclusion of the deep masses of shadow. The glass painting, I think, must originally have been enclosed within an ornamental *frame-work* of architecture.

The dulness and opacity of all these works may be ascribed less to an increased use of enamel colours, than to the mode of their application. Some enamel colours are naturally more transparent than enamel brown; none are less transparent than it.

The commonest defect of glass paintings after the middle of the sixteenth century, is the absence in them of clear lights. This is in some cases caused by not sufficiently removing the enamel brown ground from the glass in the lights of the picture; in others, by purposely spreading a thin coat of a white enamel colour on the back of the glass, over the lights and shadows alike. The result in either case is to destroy the brilliancy of the material, producing the same effect as if the painting had been executed on *ground* glass. In no glass paintings is this defect more conspicuous than in the works of the modern Munich school. The German artists have adopted the Mosaic Enamel system; and with the object probably of reducing the brilliancy of the manufactured coloured glass, to a level with the dulness of the glass coloured with enamel colours, their practice is to spread a very heavy coat of white enamel all over the back of the glass. No rays of light are therefore permitted any where to pass directly through the glass as in a Cinque Cento glass painting, and the work in consequence assumes a dull, heavy, and *substantial* appearance, quite opposed to the translucent and unsubstantial character of a true glass painting^t. The eye seeks in vain for a few clear spots through which it may be carried a little beyond the actual plane surface of the painting.

^t Some of the smaller works of the Munich school, rather resemble in their opacity and high finish paintings on porcelain than glass paintings. The dulness noticed in the text is very apparent in the windows of the Maria Hilf church

at Munich, and also in the windows of Kildown church near Tunbridge Wells. These may be cited as fine specimens of the practice of the modern Munich school of glass painting.

The shadows also soon after the middle of the sixteenth century became, in general, opaque and heavy. This arose partly from omitting to stipple their ground sufficiently, partly from a practice, which may be detected even in some of the later Cinque Cento works, of heightening the deeper shadows with broad, smear, unstippled patches, or dabs of Enamel brown.

This defect is particularly observable in the Dutch glass paintings of the latter half of the sixteenth century, and the works of the Van Linge school; coupled with the absence of clear lights, it transformed glass paintings from translucent pictures, to objects scarcely exceeding in actual transparency, fresco, or oil paintings. In general transparency of tone, an oil painting is very superior to one of these glass paintings; which are often disfigured by shadows having a certain degree of transparency when closely examined, but which appear perfectly black when seen at a distance.

The shadows and general tone of the glass paintings of the eighteenth century, from the colour being applied in little hatches with a brush, as in an oil painting, are upon the whole more transparent than those of the paintings which have just been noticed. Such shadows are however not so clear, and are by no means so effective, as shadows produced by a coarsely stippled ground^u.

It would admit of easy demonstration that the excellent system of glass painting which grew up in the middle ages, had an accidental origin, and continued to be so long practised, rather because it presented the sufficient means of competing with the hard and dry productions of the mediæval oil and water colour painters, than from any philo-

^u I have collected in a note at the end of this section, some remarks illustrating the execution of several glass

paintings which I have particularly examined.

sophical consideration of its intrinsic merit as a method of art. And that the developement of its powers in the first half of the sixteenth century, was the consequence not of the adoption of any fixed principle of execution, but the mere desire on the part of glass painters to emulate, as far as they could, the wonderful effects which had then been attained in oil painting. This consideration, whilst it may serve to account for the rapid deterioration of the art of glass painting in the latter half of the sixteenth century, should operate as a warning to modern artists not ignorantly to confound the principles which belong to essentially distinct systems of painting; the one having for its object the production of effect by the transmission of light through the picture; the other, by the reflection of light from its surface. The glass painters of the latter half of the sixteenth century, and subsequently, in a vain endeavour to compass the beauties which essentially belong to the art of oil painting, lost sight of the excellencies of their own art. The result is, that after nearly three hundred years of misconception of its principles, and mistaken practice, the art of glass painting has not yet regained the point of excellence it had attained in the middle of the sixteenth century. Whether it will ever surpass that point is a question on which I offer no opinion; of one thing I am certain, it will not reach that point unless the principles of the art, whatever they may be, are adhered to and carried out*.

In conclusion I must call attention to some practical

* I am not so presumptuous as to suppose that some of the rules I have attempted to establish are not susceptible of modification and improvement. For instance, I think, that enamel colours, the use of which would be excluded by a rigid adherence to the Mosaic system of glass painting, may be introduced for particular purposes, as to tint the flesh-colour of the figures. But I am decidedly opposed, for the reasons already given, to

their more extensive employment.

The colouring of the flesh by means of enamels to a greater extent than it was carried in the Cinque Cento period, has long been with me an open question. But I have now come to the conclusion, that the flesh, if coloured at all, ought to be fully coloured. The new window for Christ Church, Bloomsbury, has principally determined me.

questions important in their bearing on glass painting,—the proper width of the leads, and the distances at which the saddle-bars should be placed apart.

The ancient artists though they never shrank from the employment of lead-work, never unnecessarily used it. On the contrary their efforts were constantly directed to its disguise, by making it constitute as much as possible an integral part of the design.

In geometrical patterns formed of plain pieces of glass, (and which are the more interesting since they undoubtedly exhibit the germ of the Mosaic system of glass painting,) the outlines of the pattern are entirely represented by the lead-work; and in patterns enriched with painting, and in pictures themselves, the leads constitute most of the principal outlines, and are in general not distinguishable from the outlines painted on the glass.

But it is evident that to ensure the disguise of the lead-work the width of the leads must be proportionate to that of the lines usually painted on the glass: for the leaden outlines will easily be detected if they are much stronger than the painted outlines[†]. In other words the leads should be as narrow in the leaf as they can be made with safety.

The lead anciently used is not wider than (and sometimes is not quite so wide as) three sixteenths of an inch in the leaf[‡], and this will be generally found to harmonize in

[†] In proof of this I need only refer to cut 6, p. 79; and plates 60, and 61; in which broad lead is represented; and plate 8, in which the effect of modern fret lead is shewn.

[‡] The profile and face of some ancient leads of the ordinary width, have already been shewn (p. 27) in cut 3, figs. 1, 2, and 3. But leads somewhat narrower in the leaf than these, were very extensively employed. An entire window at Stowting church, Kent, probably of the early part of the reign of Edward IV.,

was leaded together with leads, the profile of one of which is given in the margin; fig. 2. The other lead, fig. 1, is of the early part of the reign of Henry VI., and is from Mells church, Somersetshire, where similar lead is commonly used. Its profile is here given in order to prove that the mode of strengthening the lead, without increasing its width in the leaf, so remarkably displayed in cut 3, fig. 3, was not confined to the Decorated period.

Both the specimens from which the

width with the painted outlines. In Early English, and sometimes in Decorated glass paintings, lead of this width is not unfrequently narrower than the painted outlines; and in Perpendicular, and Cinque Cento glass paintings, it is barely wider than them.

Experience has also abundantly proved its capability of retaining the glass securely in its place. The perfect state of repair of many specimens of Early English and Decorated glazing, the lead-work of which is coeval with the glass, sufficiently attests this fact.

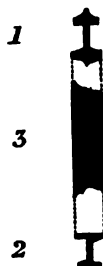
There seems to be no reason why lead of the ancient width should not again be used. That ordinarily employed in glass paintings at the present day is a quarter of an inch wide in the leaf. Yet this increased width, though so trifling, is very perceptible. The reason assigned for the increase, is the impossibility of completely excluding the wind and rain by means of leads less than a quarter of an inch wide in the leaf. Considering however that glass paintings are chiefly employed in large public edifices, used mostly on particular occasions, and for particular purposes, I hardly think that a perfectly weather-tight window is of

cut in the margin was taken, had all the appearance of having been cast in a mould. It will be observed that one of the faces of the leaf is in each lead narrower than the other. This inequality was doubtless caused by decomposition of the metal; the narrowest face in both cases being outside the window, and therefore more exposed to the action of the atmosphere. The broadest face of the leaf is that represented in fig. 3.

A somewhat still narrower lead than those in the margin may occasionally be met with in heraldry, and other minute Mosaic works of the fifteenth and sixteenth centuries; and sometimes in repairs, but a knowledge of its weakness seems to have prevented its more extensive use.

It is hardly necessary to observe that the greater the number of leads employed, the weaker individually may they be made.

CUT 26.



such paramount importance as to override all considerations of taste. The windage of an ancient piece of glazing cannot be perceived at a little distance, and its leakage is very trifling. The water it may occasionally admit can easily be conveyed outside the building, together with the moisture condensed on the glass from within, by a simple mechanical contrivance at the bottom of the window.

In ancient windows it will be found that the saddle-bars are usually placed from eight to nine inches apart; and this seems to be the most agreeable distance in most cases, though in some, an interval between the bars not exceeding six inches does not appear too little. The great object is to avoid as much as possible causing the light to appear as if it were divided into a number of square compartments—which is so often the case in modern work,—by making the distance between each pair of saddle-bars too nearly equal the width of the light. It is always better to place the saddle-bars too closely together than too far apart, not only for the sake of the stability of the work, but because they are rendered less obtrusive by their very repetition. Amongst the advantages resulting from the use of saddle-bars at short intervals, is the opportunity it affords the glazier of carrying a horizontal lead across the light, immediately in front of each saddle-bar; the opacity of which hides the lead. The workman is thus enabled, without deviating from the principle of cutting the glass to the outlines of the design, to avoid the employment of inconveniently long and weak pieces of glass, by dividing them unseen into lengths in no case exceeding the distance between two saddle-bars. This method of concealing lead-work has been noticed before. It was carried to such perfection during the first half of the sixteenth century, that a person ignorant of it, would find it difficult to conceive how some of the works of that period were constructed.

Before quitting the subject of saddle-bars, I should express my opinion in favour of retaining, at all events in pattern windows, the upright standards, or stancheons as they are sometimes called, which in ancient windows are usually put through the saddle-bars. The standards do not appear to be out of place even in picture windows also, whenever they do not happen to pass immediately behind the head of the principal figure. They seem on the whole to improve the effect of the architecture from without, and certainly they do not, in the instances just put, injure the appearance of the glass from within. To pattern windows they are an improvement. The standards from being somewhat set back from the glass, and therefore only indistinctly seen through it, are not open to the objection which applies to vertical leads, which on account of their tendency to arrest the eye, should in general be avoided as much as possible in a glass painting.

The following notices of various glass paintings are made solely with the view of directing attention to their mode of execution, and without any reference to their qualities as compositions.

THE Gothic glass in the five windows of the north aisle of the nave of Cologne cathedral, some of which bears date 1508, 1509*, when compared with earlier specimens, as for instance that in the windows of Great, and Little Malvern churches, Gloucestershire, of the last quarter of the fifteenth century, or that in the ante-chapel of All Souls' college, Oxford, of the time of Henry VI., or that in the ante-chapel of New college, Oxford, of the time of William of Wykeham, affords a satisfactory proof of the progress already made in the art, and of the more powerful effects produced by employing stipple shadows, deeper, and coarser in grain, than those used in the fifteenth century. But this Cologne glass exhibits the resources of the art only in a limited degree. The general appear-

* An enumeration of the subjects represented in these windows, and the method of their arrangement, are given in a little book entitled, "Der Dom zu

Köln von M. J. de Noel," Cologne, 1837, 2nd ed. The glass in the tracery lights of these windows is early Cinque Cento.

ance of the paintings is too flat and hard, arising from the shadows not being sufficiently deep. It is impossible however to overrate the granulated *texture* of the shadows, or the manner in which the bright lights are taken out. The glass is in excellent condition, having been cleaned within the last few years.

The windows of Fairford church, Gloucestershire, and the remains of the original glass in the east window of Winchester cathedral, both works of the sixteenth century, but probably not later than 1520^b shew a still further progress in the art. Their shadows are deep, juicy, and effective, without exhibiting the least appearance of opacity. The grain of the shadow is very coarse, and the enamel brown of which it is formed is of a rich brown tint, which renders the paintings warmer and more mellow in their tone than the Cologne glass; the enamel brown of which is, like the mediæval, of a cold tint. Some of the shadows, not only of the figures, but also of the architectural work, are heightened with a warm enamel, resembling China red. The lights are invariably left clear and transparent.

The shading used in the two last examples is, on the whole, superior to that of the greater number of the earlier Cinque Cento specimens: in which works the grain of the shadow is often too fine; a defect which produces a certain degree of dulness in the lighter shadows, and renders the deeper ones somewhat opaque. This may be observed in the west window of Brussels cathedral, dated 1528, a work by no means remarkable for the goodness of its effect; and in the windows of King's chapel, Cambridge, painted between 1527, and 1531^c. And also in the fine Flemish glass which now occupies the east windows of St. George's church, Hanover square, London, a work apparently not later than 1520^d.

To these may be added a window containing portraits of John Draeck,

^b I have already stated my reasons for supposing that the Fairford glass is of the sixteenth century (ante p. 114, note e.) A description of the subjects represented in the windows, is given in a little work, "The History of Fairford Church," Cirencester, 1841.

Bishop Fox, whose arms and motto are introduced into the east window of Winchester cathedral, held the see from 1509 to 1528.

^c Some particulars relating to these works have already been given ante p. 177, note o; and p. 179, note r.

^d It appears from a modern inscription in one of these windows that the glass formerly adorned a church at Mechlin, in Belgium. Its original arrangement

has been preserved in a drawing made of it by Bridgens, for the marquis of Ely, who once possessed the glass. Its subject, the Stem of Jesse, was adapted for three long lights; the centre one being rather taller than the others. All the figures, but one, are inserted in the windows of St. George's, though their situations have unavoidably been changed in some instances. The omitted figure was a grand representation of God the Father, which originally occupied the highest place in the centre light. It exists, but only in an altered state, in one of the windows of St. Nicholas' church, Wilton, Wilts. Mr. Nixon, the artist, fortunately made me an excellent drawing of it before it was injured.

and his wife Barbara Colibraut, with a representation of the Last Supper above, in the north aisle of St. Jacques church, Antwerp, which does not seem to be later than 1530. The shadows used in this work are more powerful than those of the others, and their opacity arising from the fineness of their grain, is therefore the more remarkable.

The east window of St. Margaret's church, Westminster, which seems coeval with the last example*, is so dirty and obscured with London smoke, that it is impossible to see clearly the grain of the shadows. I think, however, that they are too smooth and fine in grain.

Better specimens of execution may therefore be seen in the three east windows of St. Peter's church, Cologne, which represent Christ bearing the Cross, the Crucifixion, and the Descent from the Cross, (one of these pictures is dated 1528,) as well as other paintings in the same church, some dated 1528, 1530. In all these paintings the shadows are deep, and transparent, the enamel ground being very coarsely stippled; and the lights are clear and brilliant. I hardly know of more perfect specimens of glass painting than these windows.

The painting of the Annunciation, in Munich cathedral, (which has been already mentioned p. 156,) rather wants transparency in its deeper shadows, owing to their ground not being sufficiently coarse in its grain.

Of all glass paintings however, those in the apse of Lichfield cathedral are perhaps the most worthy of study; on account of the brilliancy of their lights, the power, and general transparency of their shadows. Some of the deeper shadows have indeed been rendered rather opaque by being heightened with a hatching of broad patches, or smears of un-stippled paint; but the shadows are, with this exception, exceedingly coarsely stippled. It is almost impossible to speak too highly of the dexterity with which this glass has been handled. A good deal of the shading is calculated to produce effect only when seen from a distance, so coarse is it in its texture. If the Lichfield glass were to be carefully washed with soap and water and cleansed from the dirt which covers it, the transparency and brilliancy of the execution would be more apparent than at present. Some of the Lichfield glass paintings are dated 1534, 1535, 1538, 1539. They are all equally fine specimens of execution†.

* Some particulars relating to this window and the last, are given ante p. 180, note s. It has been said that the portrait of the king in the east window of St. Margaret's, resembles Henry VII. rather than Henry VIII. It may be that the window was originally intended, as the story goes, for Henry VII., and that

his portrait was obtained for the purpose; but that on his death the window was executed as it now is, as a present to his son, but without obtaining a fresh cartoon for the king's likeness.

† Some further notices of the Lichfield glass will be found ante p. 179.

The painted glass in the choir of St. Jacques church, Liège, though on the whole inferior to that at Lichfield, may also be very advantageously studied. Its lights are clear and brilliant, and its shadows powerful, and very coarsely stippled, and transparent. The Liège glass is in beautiful order, having been lately cleaned.

The examples which I shall next cite are the four windows of the chapel of the Miraculous Sacrament, Brussels cathedral, two of which are dated 1546, and two others 1547. Their shadows are deep and powerful, but in general, transparent. Their grain is very coarsely stippled, and the deeper parts of the shadow are, in most instances, strengthened with a hatching of black lines: but in some cases, I think, with unstippled hatches of paint. The complexions of the figures are, as is common in works of this period, heightened with a red enamel, like China red, and the brown with which they are shaded is of a fine rich tint §.

The next specimens are the north and south windows of the transept, Brussels cathedral, which are both dated 1557; but these, though most effective pictures, betray in the increased opacity and heaviness of their darker shadows, and diminution of clear lights, symptoms of the decline of glass painting which so soon afterwards took place. These last windows are doubtless inferior as glass paintings to those in the chapel of the Miraculous Sacrament, but are very superior to most contemporary works.

The three windows in the north aisle of Amsterdam cathedral, which are dated 1555, are very heavy and dingy objects in comparison with those which have been mentioned. Their subjects are the Salutation, the Nativity of Christ, and the Death of the Virgin, with portraits of the donors beneath. Enamel colours are used to the exclusion of coloured glass in many parts of the pictures; the shading, though coarsely stippled, is too dense, and is too much heightened with smear hatching. The lights are also not sufficiently preserved. Much exaggerated praise has been bestowed on the painting representing the Death of the Virgin, principally, I believe, on account of the natural appearance of the flame of the candle which she holds in her hand. I need hardly say that the brilliancy of this flame is materially enhanced by the dulness of the rest of the picture.

The windows of Gouda church, Holland, form a nearly complete series

§ Dr. Gessert, "*Geschichte der Glasmalerei*," p. 143, ascribes these windows to Roger Van der Weyden, whom he supposes to be identical with Roger de Brussels, (ib. 142.) This Roger appears to be the same artist as Rogiers, mentioned

by Le Vieil ("*L'Art de la Peinture sur Verre et de la Vitrerie*," p. 42), as having painted not only these windows, but also the north window of the transept, Brussels cathedral.

of glass paintings from 1555 to 1603. Two of the windows were repaired in 1655, 1657. As glass paintings they possess various degrees of merit, but all sadly want brilliancy, and transparency. Some, and these not always the latest ones, are also very defective in richness of colour, arising from a substitution of enamel colours for coloured glass. Their dull heavy appearance is principally owing to a want of clear lights, and transparent shadows. A brown enamel ground *dabbled on*, and possessing no decided grain, is used for the shadow in half tint, and is generally not sufficiently removed from the lights. In some instances the bright lights are subdued with a thin coat of enamel paint. The darker shadows are formed sometimes of coarse stipple shading, heightened with smear hatching; but more commonly of smear hatching only. They are also spread too extensively over the glass.

These works are very inferior in point of execution to the Visitation, in the south aisle of the choir of York minster, but the shadows here have not a sufficiently decided grain, and are therefore not perfectly transparent.

The side windows of Lincoln's Inn chapel, which are dated 1623, 1624, and 1626, are generally supposed to have been painted by the Van Linges, but from their coarse and inartificial execution, I am inclined to attribute them rather to some inferior workmen employed as painters under the Van Linges. In their general style, however, they evidently belong to the Van Linge school. In the Lincoln's Inn windows, as in the works of the Van Linges at Oxford and elsewhere, enamel colours applied as in an oil painting, are much used in the heads and naked parts of the figures, and in the backgrounds of the designs. Coloured glass is very generally employed in the draperies, and is occasionally diapered with an enamel colour of the same tint as itself. In some of the Oxford glass, the basis of the shading is stippled; in general, however, in the works of the Van Linges, it possesses no decided grain, but appears to have been suffered to dry without being stippled at all. The darkest shadows are universally formed by smear hatching, and smear shading. The shadows are in general opaque and heavy, and too much extended over the glass, to the exclusion of clear lights.

In point of colour the works of the Van Linges, chiefly on account of the strength of the pot-metal colours employed, are often as rich as the richest Decorated examples, the colouring of which these artists appear to have imitated: but as glass paintings they are *over-painted*, and heavy. I have remarked in the draperies of large figures belonging to the Decorated style, smear shadows as deep, and nearly of the same texture as those used by the Van Linges, but these are confined to

proper limits, and are always accompanied with bright lights, and therefore whilst they increase the richness, and materially promote the distinctness of the painting, the deep colours of which would overpower and extinguish more delicate shadows, they do not destroy the brilliancy or general transparency of the work.

The dulness and heaviness of the works of the Van Linge school, are nowhere more conspicuous than in the side windows (all but the two easternmost) of Magdalen college chapel, Oxford, in which there is no coloured glass to withdraw the attention from the style of the execution. These windows indeed rather resemble sepia drawings than glass paintings.

The four painted windows of the chapel of the Virgin, Brussels cathedral, which are dated 1649, 1650, 1658, and 1663, are much poorer in colour than the paintings of the Van Linges, though they are nearly as dull in appearance; the result of substituting enamel colours in a great degree for coloured glass, and of omitting to preserve the lights clear.

This heavy style of glass painting was exchanged for a lighter, but weaker one both as regards colour, and general effect, in the latter part of the last century and early part of the present. As instances I may mention the allegorical painting in Trinity college library, Cambridge, painted by Peckitt, from a design by Cipriani. The west window of New college chapel, Oxford, by Jervais, after a design by Sir Joshua Reynolds: and the windows of Arundel castle, Sussex. Coloured glass is sparingly introduced into the first example, the two last are wholly coloured with enamels. All are executed by smear hatching, exactly like oil paintings. It must be admitted that the windows at Trinity college, and New college, possess a more pearly and silvery tone than the preceding works; but their want of rich colouring constitutes a fatal objection to them. The windows at Arundel castle are as deficient in brilliancy, as they are in colour, indeed these last works have more the appearance and effect of a painted canvass window-blind, than of painted glass.

In the modern Munich school of glass painting, coloured glass is used to a considerable extent in the draperies of figures, &c., but the painting is chiefly executed with various kinds of enamel colours, applied to the glass like the paint in an oil painting. The lights are subdued with a white enamel colour, spread over the back of the glass. Thus these works, though their shadows are sufficiently transparent, are uninteresting from their want of brilliancy.

SECTION III.

ON THE SELECTION OF A STYLE.

IF the remarks in the preceding section are well founded, it is evident that the *Mosaic* is the only true system of glass painting; and consequently, that all future works,—restorations and repairs of *Enamel* and *Mosaic Enamel* glass paintings excepted,—should be conducted on this system exclusively. This being assumed, it remains to enquire how far the four styles into which ancient glass painting has been divided, are capable of being employed in modern works; and to consider whether it is not possible and desirable to practise the art, free from the restrictions which these styles impose. The examination of these points will, I think, lead to the conclusion that the Early English and Decorated styles must, for the present at least, be discontinued; and that though the two more recent styles,—the Perpendicular, and Cinque Cento,—may still be followed with more or less success, the adoption, on all occasions, of a new and independent style will be found at once fully to satisfy the conditions, according to which any particular style must be selected for practice, and to contribute most effectually to the cultivation and advancement of the art.

The comparative merits of the several styles, as a question of speculation, must be left to the decision of individual tastes and sentiments; but, in the selection of a style for practical application, a compliance with two conditions appears to be necessary. These conditions are, first, the possibility of successfully executing a modern work in strict conformity with the proposed style; and

secondly, the appropriateness of the style to the building for which the glass painting is designed.

An exact conformity with style demands, of course, an exact resemblance between the imitative work and ancient examples, not only in the conventional manner of its execution, but also in its general effect. And since the general effect of a glass painting depends quite as much on the *quality* of its materials as on the mode of working them, it is evident that in order successfully to imitate the effect of ancient glass paintings, recourse must be had to materials identical in all respects with those used in them.

But the modern material is identical, or nearly so, only with the glass of the first half of the sixteenth century, and is essentially different in texture, and quality, to the glass used in the thirteenth, fourteenth, and indeed until almost the close of the fifteenth century: the dissimilarity increasing according to the antiquity of the example.

The progressive changes in the manufacture of ruby glass are, to a certain extent, actually exhibited in a diagram given in a former part of this work ^a. Those in other kinds of glass are indeed incapable of such an illustration as this; but I have repeatedly dwelt upon them, as affording some of the most valuable tests of the age of a glass painting. I am not aware that any attempt has hitherto been successfully made to revive the manufacture of the earlier kinds of ruby glass. The ruby glass now used is identical, both in the thinness of its coloured coating, and in its general effect, only with the ruby of the sixteenth century; not excepting even the *streaky* ruby which has recently been made, as it is said, in imitation of that of the thirteenth and fourteenth centuries, but from which it entirely differs in appearance.

A like difference may be observed between other kinds

^a See cut 1, ante, p. 22.

of ancient glass, and their modern imitations. The ancient *tints* have in many instances been reproduced, but not the *texture* of the more ancient material. Consequently there is a difference of effect between the modern and the ancient glass. The former is more homogeneous, and therefore clearer, and more perfectly transparent than the latter, especially than that belonging to the twelfth, and two following centuries : and I feel persuaded that it is to this circumstance that we must refer the poor and *thin* appearance, which almost every modern glass painting, executed in a style much earlier than the sixteenth century, presents in comparison with an original specimen ; notwithstanding the utmost pains have been taken to render the imitation of the particular style complete, by a strict adherence to its conventionalities in regard to drawing, and execution¹. It has often been boldly asserted, that the superior richness of the glass of the thirteenth and fourteenth centuries, to that now made in imitation of it, altogether depends on the effects produced by age, and dirt. But most assuredly this is not correct. Glass of the thirteenth century, especially blue French glass, may not unfrequently be met with in a clean state, and scarcely, if at all, affected by the corroding action of the atmosphere ; and yet this glass, whether seen near, or at a distance, is invariably much richer than any modern glass. Again, glass of the thirteenth and fourteenth centuries, which has been cleaned, is always richer than modern glass, even than that which has been purposely dirtied to give it a rich tone. No cleaning is able to deprive ancient glass of the above date, of its tone, richness, and gem-like appearance², qualities which impart to

¹ I might mention amongst other instances, a large Decorated design in one of the windows of Augsburg cathedral, which has recently been re-executed in modern glass.

² The gem-like appearance of early

glass is chiefly produced by the irregular depth of its colour. This is strikingly exemplified by the ancient ruby glass, the black parts of which answer in effect to the shaded parts of a real ruby, and the light parts to the play of light seen

it such a charm, and so admirably harmonize with the general character of the execution adopted concurrently with its use¹; cleaning only increases the brilliancy of this glass. Indeed the difference of effect between modern and early glass, is too great to be accounted for in the manner supposed. Glass of the latter half of the fifteenth century is often as much, and sometimes more corroded and weather-stained than that of the thirteenth century; but none can deny that there is a very perceptible difference in appearance between all the glass of these two periods. The difference above alluded to between modern and ancient glass, is, I believe, occasioned by our using purer materials than the ancients did, in glass making; and furnaces of greatly improved construction, which insures a more perfect fusion and amalgamation of the vitreous particles than perhaps could have been effected in the older furnaces. If this supposition be correct, I apprehend, that glass of the same quality as that formerly used, will not be reproduced, until there is a recurrence not only to the substances formerly employed in its formation, but also to the ancient mode of fusing them together^m.

in the gem. Modern glass painters often try to produce the effect of the earliest kinds of ruby, by leading together a number of small pieces of modern ruby, of different tints; instead of employing large pieces of glass as the ancient artists did. But this is but an imperfect expedient. The leads may serve for the dark parts of the old ruby, but there is nothing to answer to its light parts.

¹ A proof of this is afforded by one or two of the windows of the south aisle of Strasburg cathedral, which have been lately cleaned. These works are of the early part of the fourteenth century; their present *richness*, and brilliancy, are surprising.

In repairing many of the earlier windows of Cologne cathedral, modern glass has been substituted for the old, whereby their general effect is much impoverished. Many early glass paintings entirely owe

the goodness of their effect to the texture of the glass of which they are composed. The experiment may easily be tried by copying the rose represented in plate 42, in modern white glass, embedding it in a triangular-shaped mass of modern ruby, about fifteen inches in length, and then comparing it with the original example.

^m Since the present work was sent to the press, I have met with a pamphlet, entitled, "*Peinture sur Verre au xix^e siècle*, par G. Bontemps, Chevalier de la Légion d'Honneur, Directeur de la Fabrique de Verres et Vitraux de Choisy-le-Roi," Paris, 1845. M. Bontemps must possess great experience; I am therefore glad to find in his remarks a confirmation of what I have said respecting the difference which exists between the texture of early and modern glass; and of my opinion that the peculiarity of the early material

But however this may be, it is impossible to deny the unfitness of glass, as at present manufactured, for the execution of many of the ancient designs. I allude in particular to those compositions which are most thoroughly Mosaic in character, as the medallion windows of the Early English style, and many of the coloured borders and ornaments of that and the Decorated style. The various colours of the works, when composed of the ancient material, continue distinct from whatever point they may be viewed; yet if modern glass is substituted for it, the dif-

arises from the imperfection of the manufacture, and cannot be obtained by the present process.

M. Bontemps would perhaps ascribe less of the effect of ancient glass paintings to the influence of their texture, than I have done; but he fully admits that a part of this effect is the result of the texture, and he endeavours to account for it. I shall give M. Bontemps' own words on this subject. It is as well to premise that the drift of his argument, and indeed of the pamphlet, is to shew that it is erroneous to suppose that the art of glass painting is a lost art, that the moderns have, or *might have*, the same materials as the ancients, and that nothing is wanting but an artist capable of using them. He is, it should be added, a decided admirer of early Christian art, and prefers the glass paintings of the twelfth and thirteenth centuries, to those of any subsequent period.

In the first of the passages to which I have alluded, after having enumerated the few colours used in the twelfth and thirteenth centuries, he goes on to add to them the peculiar white glass of that time.

"Il ne faut pas oublier dans cette nomenclature le verre blanc que l'on fabriquait alors très-verdâtre à cause de l'impureté des matières premières qu'on employait, ce qui était du reste un mérite pour son usage dans les vitraux, car un verre trop blanc éteint les autres couleurs, les obscurcit et fait trou dans les vitraux. Tous ces verres sont généralement inégaux d'épaisseur et de teinte, car l'art de la verrerie n'est pas très-perfectionné sous le rapport du soufflage." p. 19.

"Que nous manque-t-il matériellement pour faire les vitraux des xii^e et xiii^e siècles? Nous avons des verres rouges aussi beaux que ceux qui nous restent de ces époques: nous avons des verres verts, jaunes, violets, et bleus des tous les plus variés. Nous fabriquons généralement ces verres plus minces que les anciens; mais à coup sûr ce n'est pas une difficulté de faire des verres plus épais. Des personnes d'une autorité respectable pensent qu'une partie de l'effet produit par les anciens vitraux résulte de l'épaisseur des verres, des irrégularités de fabrication et des bulles multipliées dont ces verres sont criblés: jusqu'à un certain point ce résultat ne peut être révoqué en doute; les bulles surtout empêchent le passage direct des rayons de la lumière, et produisent un effet analogue à celui qui résulte de l'altération de la surface extérieure du verre par le temps; toutefois il ne faudrait pas chercher là le secret de la perfection des vitraux des xii^e et xiii^e siècles, car on trouverait bien des panneaux de verrières de cette époque où le verre était d'une fabrication assez régulière et presque exempt de bulles." p. 21.

"Quoi qu'il en soit, s'il est bien reconnu nécessaire pour produire l'effet des anciens vitraux d'avoir des verres irréguliers d'épaisseur et de teinte, des verres remplis de bulles, ce sera bien plus coûteux que de fournir des verres réguliers et purs, car la fabrication est organisée de manière à produire du beau verre; mais enfin le verrier en fabriquera; et ce n'est certes pas là qu'il faut chercher les secrets perdus du grand art des vitraux." p. 22.

ferent colours appear to the distant spectator as if they were confused and blended together; the intermixture of a number of small pieces of glass of two primitive tints, as red, and blue, often producing at a distance the effect of a colour compounded of both^a. It is indeed surprising that modern glass painters continue to attempt impossibilities, in trying to imitate designs of this nature, without possessing the requisite materials; and the more so, as a very little attention to the subject will suffice to shew, that the ancient glass paintings became generally less broken and Mosaic in their colouring, in proportion as successive improvements in the manufacture gradually produced a more perfectly homogeneous and translucent kind of glass. It is indeed hardly necessary to insist further on a fact so obvious as that an essential difference in the material must produce a sensible difference in the effect of a glass painting. An instance of it may be found in Perpendicular glass paintings of late and early date. The similarity of execution and character which exists between works of the early part of the fifteenth century, and of the close of the reign of Edward IV., or commencement of that of Henry VII., has already been noticed: yet in their general effect, these paintings often present a striking contrast; the earlier being commonly colder and greener in their appearance than the later examples, which are softer, and more silvery. This is principally owing to the texture and quality of the white glass, which enters so largely into the composition of a Perpendicular glass painting; that used in the earlier specimens, being in general of a cold strong green hue; while

^a The confusion of colours above alluded to, is greatly increased when an ancient design of Mosaic character is copied on a *reduced scale*. An instance of this defect is afforded by the east window of the new church at Camberwell;

in which an intermixture of red and blue glass produces at a distance the appearance of purple. It is due to the artists employed in painting this window, to state that the *design* of the glass is not theirs.

that subsequently employed, is nearly colourless, and of a yellow tint.

It appears then from the foregoing remarks, that the peculiar nature of modern glass presents an obstacle to the *complete* imitation of any of the ancient styles of glass painting, except the Perpendicular of the sixteenth century^o, and the Cinque Cento. The Early English and Decorated styles are therefore excluded from employment in modern work, by the first of the conditions which have been above laid down for the selection of a style.

The second of these conditions it may be remembered, required that the style of the glass should be appropriate to that of the building for which the painting is intended. It is true that in the practice of former ages, no such condition as this was attended to in the erection of painted windows^p; the style of glass painting prevalent at the time being indiscriminately employed in all works, whether destined for the windows of buildings of contemporary, or earlier date. At the present day, however, the better opinion is in favour of observing a general harmony between the architecture and decorations of a building, so that the whole work may, as far as possible, appear consistent with itself^q. With regard to glass painting con-

^o I have in the course of the following remarks, used the term, "Perpendicular of the sixteenth century," as if it denoted a style different from the "Perpendicular." This has been done, however, principally for the sake of more convenient reference. All *late* Perpendicular glass, including that of the last twenty years of the fifteenth century, is as easy of imitation now, as that of the sixteenth century.

^p My friend, the Rev. J. L. Petit, has repeatedly called my attention to the adaptation in medieval architecture, of late styles to early styles, when they come in contact in the same building; but I have not observed similar adaptations of styles in glass paintings. In

repairs even, the style of the day was adopted without modification. A similarity in general arrangement between early and late windows in close proximity, may be however sometimes noticed, as for instance between Bishop Fox's and some earlier glass in the side windows of the clearstory of the choir of Winchester cathedral.

^q That is to say, provided the building itself be Gothic. Palladian architecture is not in fashion just now; consequently no impropriety appears to have been felt by the promoters of that curious *mélange*, the east window of St. James's church, Piccadilly, in selecting a nineteenth century design, with ornamental details, more resembling the *Romanesque* in cha-

sidered as a decoration, this harmony may be obtained, either by executing the work in a style which was contemporaneous with the architectural style; or by modifying the style of a different period so as to render it in some measure accordant with the architecture; or, thirdly, by the employment of a new style of glass painting, of a character so comprehensive and flexible as to admit of adaptation to the style of the architecture of any building. In Perpendicular, and Cinque Cento buildings, the first of these methods may be adopted; and even in earlier buildings the desired harmony may literally be preserved, by imitating the glass paintings of the corresponding period. But the employment of these styles of glass painting has already been forbidden by the first of the conditions for the selection of style, and they can hardly be said to comply with the spirit of the second. The imitations of these ancient styles are necessarily so imperfect that it is immediately perceived that the architecture and decoration are not really of the same period; and this circumstance, joined to the disgust which is felt at a gross and clumsy imposture, produces an effect at least as disagreeable as that which can be occasioned by mere discordancy of styles.

The Early English, and Decorated styles of glass painting being thus excluded, it would be necessary to confine ourselves to the Perpendicular of the sixteenth century, and the Cinque Cento, if we forbid glass painting to be practised except in conformity with ancient examples. But in this case the harmony between architecture and decoration, which has been made a necessary condition in the

racter, than any thing else; although one would have thought that a knowledge of the Cinque Cento style, might have led them to adopt a design wholly in that style, as best suited to the gene-

ral character of the church, which is certainly not "Romanesque," according to the technical signification of the word, but is purely, and exclusively, "Palladian."

practice of the art, cannot be observed in buildings of the earlier Gothic styles. For neither of the styles of glass painting just mentioned, though of course admitting many varieties in execution, is sufficiently *plastic* to enable the character of individual works designed in conformity with its rules, to be always moulded into conformity with the character of the buildings chosen for their reception. Indeed the rigid rules of conventionality would prevent our further adapting the style of the glass painting to that of the architecture, than by simply confining the Cinque Cento style to the buildings in which the round arch prevailed, and the Perpendicular to Gothic'. It would be impossible, consistently with the rules of style, to impart a Norman character to a Cinque Cento glass painting intended for a Norman building, or an Early English, or Decorated character to a Perpendicular glass painting designed for an Early English, or Decorated building.

Hence it follows, that neither of the two first methods above indicated for obtaining the desired harmony between the style of the architecture, and that of the glass paintings which decorate it, being capable of general application, recourse must be had to the third, viz., to the introduction of a new style of glass painting more comprehensive and flexible than the late Perpendicular, and Cinque Cento.

The introduction of a new style of glass painting, suitable to the exigencies of the present age, may be objected to as a startling novelty. That it is founded on the analogy of ancient precedents, sufficiently appears by the fact, that formerly each century, and almost every year, was productive of some fresh change in the practice of this art, dic-

' I was once myself in favour of an exclusive application of the Perpendicular style of glass painting to the windows of all Gothic buildings; and of the Cinque Cento to Palladian; but a

more careful consideration of the subject has induced me to relinquish this opinion in favour of that set forth in the text.

tated by a desire to render it conformable with the spirit of the age, and to keep it in a state of concurrent advancement with the other arts of design.

It should also be borne in mind, that the modern imitations of the two earlier styles of glass painting, do themselves in effect constitute collectively, a new style of glass painting. For they bear the manifest stamp of the nineteenth century in the *material* of which they are composed, notwithstanding their design and details belong to an earlier period. The hands may be the hands of Esau ; but the voice is still the undisguised voice of Jacob.

On the formation of the new style, I shall in a subsequent page offer a few suggestions ; but I think that they may be advantageously preceded by some general remarks on imitation, and on the means of raising the character of glass painting as an *art* : for a consideration of these points can hardly fail of shewing the necessity of the new style, independently of the ground which has already been urged for it.

The most successful of the modern imitations are those of the *later* examples of ancient glass painting. Such as are executed in the Perpendicular style, are in general far more satisfactory, than those executed after Decorated, and Early English models. This circumstance is easily accounted for, by what has already been stated concerning the texture of modern glass, and the practice of the ancient glass painters. I am strongly inclined to think, that the greater transparency and evenness in tint of the glass of the fifteenth century, tended amongst other causes, to the general adoption at that time of larger pieces of glass than had been usually employed in the Early English and Decorated glass paintings, and, in particular, of a more tender and delicate mode of execution. The ancient artists had no doubt observed that the glass of the fifteenth century was not so well suited for

mere Mosaics, and works principally expressed by strong outlines, as the denser and less homogeneous material of the earlier periods. Whilst therefore I greatly object, under present circumstances, to imitations of Early English, and Decorated glass paintings, from a persuasion that much of the beauty of the originals depends on the peculiar adaptation of their design and execution to the texture of their material, which is so essentially different to that of modern glass; I admit that very pleasing, though imperfect imitations may be produced of Perpendicular glass paintings, earlier than those of the sixteenth century; for the delicate execution and handling, the breadth of colour, and character of ornament used in these works, are not unsuited to the nature of modern glass.

Without therefore expressly advocating the employment of these imperfect imitations of Perpendicular glass, I am far from condemning their use, if carried out in a true and artist-like spirit: in such case they may furnish the means of embellishing the windows of Perpendicular buildings, earlier than the sixteenth century, in an appropriate manner*. But I must enter my protest against those vile imitations of ancient Perpendicular glass, the disfigurement rather than the ornament of so many buildings, which whilst exhibiting in an exaggerated degree all the defects of their originals, possess little of their merit, and none of their interest. A taste for these, amongst other gross caricatures of ancient painted glass, sprung up in this country on the revival of the Mosaic system of glass painting, and although considerably modified of late, is by no means extinct†. That

* The best imitation of the kind that I have yet seen, is in one of the north windows of the nave of Farningham church, Kent. This work consisting of two figures, with canopies over them in the style of the latter half of the fifteenth century, possesses the *brilliancy*, as well

as the silvery effect of old glass. It was painted by Mr. Clutterbuck.

† The general character of these works and the usual mode of their composition being made up of "authorities" raked together from all parts of this country, and even of the continent, is thus

designs of a character so execrable as would ensure their speedy condemnation if represented on canvass, should yet become the theme of extravagant praise, if executed in glass, would be unaccountable, did not experience teach that on a change of fashion, the good and bad qualities of the old are commonly rejected together. The defect of the glass paintings between the close of the Cinque Cento style, and the revival of the Mosaic system, chiefly arose from a misapplication of art. Hence both the amateurs and painters of this century appear to have thought that they could not more completely rectify the error of their predecessors, than by falling into the opposite extreme of disregarding the claims of art altogether. But however this may be, it is impossible to defend the practice of extolling glass paintings of very inferior merit because they exhibit the imperfect drawing, or quaint expression, of the middle ages, or because being purposely obscured with dirt^a, they may in some degree remind the spectator of what is termed the "mysterious effect" of ancient glass.

ridiculed in "*Punch*," Nov. 29th, 1845. "A card, — worthies made up from any number of authorities, as per specimen annexed, viz., an unknown saint, which has been faithfully copied from various originals, viz., Head from a piece of broken window found under a brick-kiln by the Archæological Institute at Winchester; missal from a tombstone in Dublin cathedral; right hand from half a bishop picked up after the fire at York minster; left ditto from the nineteenth figure (counting from the right) in the oriel window of St. Peter's at Rome; feet from part of a broken window (which has never been mended) in St. Stephen's, Walbrook; drapery from the deal boards in Westminster abbey." Ludicrous as this is, those who are acquainted with the practices of the authority-mongers, know that it is hardly an exaggeration.

^a I do not go the length of condemning *all* dirtying or "antiquating" of glass whatever, my objection is to the

abuse of the practice. A *slight* obscuration such as that produced by age, is on the whole beneficial, because it increases, though it cannot of itself produce an harmonious tone in the work. This is particularly observable in the white pattern windows of the fifteenth and sixteenth centuries. In picture windows it is of less consequence, because the shadows themselves give a tone to the glass.

I believe that nothing is more difficult to imitate in practice than the mellowing effect of age upon a glass painting. The film produced on the glass by a slight decomposition, affecting both surfaces of the sheet, and the adhesion of ferruginous particles derived from the saddle-bars, and of various kinds of minute lichens, and mosses invisible to the naked eye; is, through the superior delicacy of Nature's operations, more transparent than any yet produced by artificial means.

It cannot be imagined for a moment, that the medieval glass painters ever intentionally drew ill:—the evidence is entirely the other way;—and it is indeed a great mistake to suppose that any object is gained by imitating the bad drawing of the earlier figures. Their charm consists not in their distortion, but in the real artistic feeling, and thorough conception of the subject, which are expressed in them, as completely as the artist's imperfect knowledge of drawing would admit*. And as to the "mysterious effect" above alluded to, that is a matter rather to be deprecated than sought for, since it is principally occasioned by the injury which the ancient work has sustained by time or accident, and is really a defect, and not a beauty; though imaginative persons may derive a pleasure from contemplating the confused fragments similar to that produced by the sight of an unfinished sketch of some great master.

When the sacredness of some of the subjects represented in glass paintings is considered, we surely ought to be cautious not to suffer them to be degraded into *caricatures*. And if such representations are useful in churches, as serving to recall the wandering thoughts, and awaken feelings of piety and veneration, they should be such as can be easily understood. In short, if we wish glass paintings to be a means of instruction, or even to be looked upon without

* The practice of imitating the imperfect drawing of the human figure which so often occurs in Gothic glass paintings, derives no support, as is sometimes supposed, from the legitimate practice of adopting in modern buildings the grotesque sculpture which constitutes so important a feature in ancient Gothic architecture. These details, sometimes so gross and extravagant as to call down the censure of the Church, [see "Archæological Album," vol. i. p. 92; and the extracts there given (in notes) from the "Apology of St. Bernard, in the twelfth century," and the decrees of the second

Nicene council, A.D. 787,] were however designed as mere *ornaments*, and as ornaments are always most effective, and complete. The *statues* which abound in Gothic buildings are not grotesque, and no architect would think of making them so in a modern building. Grotesque ornaments may and do often occur in ancient glass paintings, but the grotesqueness of the principal figures is but the result of imperfect drawing, and not of design. I certainly think that in heraldic glass paintings grotesqueness is a decided merit.

contempt, they must not be permitted to fall below the level of the understandings of those to whom they are addressed; at a time when the gradual diffusion of knowledge and the engravings with which every class of books, and even many kinds of newspapers are accompanied, insensibly create a familiarity with good, or at least respectable models⁷.

The extensive employment of glass paintings suggests the propriety of rendering these works conducive to the advancement and encouragement of *art*⁸.

⁷ The folly of admiring ancient art for the sake of its bad drawing, and of imitating its bad drawing, is amusingly quizzed in the following extract from "Punch," Oct. 4th, 1846.—"FOR PARLIAMENT. (A Cartoon.) The decorations of the New Houses of Parliament will be incomplete, unless they include a representation of JUSTICE, who is supposed to preside over parliamentary proceedings. That the jib of JUSTICE, to use a nautical term, should have a mediæval cut, is highly necessary, for two considerations. In the first place, JUSTICE, cheek by jowl as she will be with CHIVALRY, and other Gothic company, will otherwise resemble a denizen of the waters out of its element. In the second, the Justice of Parliament, for an obvious reason, should be delineated in a style approaching caricature or burlesque, which is precisely that of the art of the middle ages. For these good reasons, it is essential that JUSTICE should grasp her scales and sword by a mode of prehension practicable by no mortal; and that those properties should be cumbersome and awkward-looking in the extreme. There is a profundity in representing her as a supernatural being, taking hold of things in an impossible manner. On the same deep principle she should be drawn standing in an attitude which the human mechanism does not admit of. There is another good reason, which we will not enlarge upon, why JUSTICE should appear twisted in the British Senate.

"The tardigrade character of JUSTICE ought further to be made visible in her feet, which should be quaintly clumsy, and contorted to a degree involving lameness. The anatomical difficulties which

oppose these requisites are to be veiled with a profusion of drapery, which, as our sagacious ancestors well knew, will cover outrageous drawing. The face of JUSTICE should be that of a monumental brass, both on account of the æsthetical character of the material, and the corpse-like attributes proper to Gothic sanctity. The cause of right and nature *versus* humbug, which JUSTICE is ever trying, ought to be manifested by scrolls stuck into her scales, inscribed of course with old English characters. Altogether, the person of JUSTICE should be deformed, and her look old-maidish; so that she may be devoid of the Paganism of symmetry and beauty."

The figure of "Justice" which accompanies the above extract in the original, is excellent, and really not a whit more absurd than many grave imitations of mediæval art.

⁸ A very unfounded prejudice exists in the minds of some persons against the claims of glass painting to be considered one of the fine arts, because some of its processes are necessarily conducted by artisans, as burning the glass, leading it together, and setting it up in its place, &c. Yet the sculptor is not thought less worthy the title of *artist*, because he employs a number of assistant workmen to hew the marble roughly into shape, to prepare it for his own chisel, and to erect the statue when finished.

Equally incorrect is it at the present day, to designate an *artist* who paints glass a *glazier*. No one thinks of applying any other term than *architect* to the artist who designs beautiful buildings; yet in the simplicity of ancient times, the word *architect* was unknown. He

Glass paintings are, to a certain extent, a species of architectural decoration; but not more so than fresco paintings, yet the greatest authorities have not considered a display of high art in a fresco incompatible with its decorative character. I am quite sure that a glass painting is in its way, as capable of high artistic developement as a fresco painting; and am only anxious to see the same attention paid to the one branch of art, as has already been paid to the other. It should be borne in mind that a display of high art depends, not on the nature of the materials employed, but on the mode of employing them. The glass painter must indeed adapt his subject, and the manner of executing it, to the means which glass painting places at his disposal; but the artistic character of the work is wholly independent of these circumstances, and is secured by the skill of the artist alone.

It requires however far greater knowledge to produce a work of art, than is possessed by a mere draughtsman, however rapid or expeditious he may be in his execution*. If therefore we are anxious to cultivate glass painting as an

was but a chief of the fraternity of masons, and was called a master mason; so indeed the glass painter was a chief of the fraternity of glaziers, and was called a master glazier; but we are not therefore bound to retain his ancient appellation. The master glazier appears to have been formerly a person of equal consideration with the master mason; each received the same amount of wages.

Many modern painters are indeed deservedly classed with glaziers: such as those purely mechanical persons who paint glass pictures at so much the square foot; and in order to undersell their competitors, set the enormous profits arising from the sale of their *pattern* windows, against the losses sustained by the cheapness of their *picture* windows.

* Sir Joshua Reynolds's observation on great rapidity of execution, is extremely just: he says,

"It is undoubtedly a splendid and desirable accomplishment to be able to

design instantaneously any given subject. It is an excellence that I believe every artist would wish to possess; but unluckily the manner in which this dexterity is acquired, *habituates the mind to be content with first thoughts without choice or selection*. The judgment after it has been long passive, by degrees loses its power of becoming active when exertion is necessary. Great works which are to live and stand the criticism of posterity, are not performed in a heat. A proportionable time is required for deliberation and circumspection. I remember when I was at Rome looking at the fighting gladiator, in company with an eminent sculptor, and when I expressed my admiration of the skill with which the whole is composed, and the minute attention of the artist to the change of every muscle in that momentary exertion of strength, he was of opinion that a work so perfect required nearly the whole life of man to perform."—Discourse xii.

art, we must encourage *artists* to practise it, by ceasing to countenance those mere *artisans* who at present make it their trade, and confine it to the lowest depth of degradation^b.

It is evident that the first step towards elevating glass painting to the rank it once held amongst the arts, is to estimate its productions by those sound rules of criticism, which are alike applicable to all works of art; and not by the sole standard of antiquarian conformity. But I fear that this principle cannot be carried into effect whilst glass painting is confined to mere imitations.

In estimating the merit of an imitative work two points are really presented for consideration;—its quality as a work of art, and its conformity with the conventionalities of style. But inasmuch as a knowledge of the conventionalities of style is more commonly possessed than a knowledge of the principles of art, because the former is incomparably easier of acquirement than the latter; amateurs, who exert a very powerful influence on the state and condition of glass painting, are apt in their criticisms, to fall into the error of regarding a conformity with style, not as an accessory to the glass painting, but as constituting the sole end and essential object of the work. Hence a copy, or mere compilation, scarcely rising in merit above a copy of some ancient glass, or other painting, is so often preferred to a design, which attempts, however artistically, to carry out an ancient style in *spirit*, rather than in conventionality only: because the mere copy will naturally exhibit a closer and more literal compliance with the petty details of style, than the latter more intrinsically meritorious work: a course which cannot fail to retard materially the real advancement of glass painting as an *art*, and the full developement of its powers.

^b See note at the end of this section.

Being clearly of opinion that the art of glass painting has not hitherto attained that perfection of which it is susceptible,—for the peculiar circumstances of the sixteenth century caused its decline before it arrived at complete developement,—I trust I may be excused if I go counter to the generally received opinions of the age, in advocating as the surest means of effecting the true advancement of the art, the total relinquishment of all copies or imitations of ancient glass whatsoever, whether perfect or imperfect in themselves; and the substitution of a new and original style of glass painting, founded on the most perfect practice of the *Mosaic system*, and sufficiently comprehensive to include within itself designs of the most varied character; some for instance bearing a resemblance to Early English glass paintings, some to Decorated glass paintings, and so forth, without however ceasing to belong to the nineteenth century, or degenerating into imitations.

It has already been shewn that a measure of this kind would at all events be necessary, to enable the modern glass painter to adorn the windows of a Norman, Early English, or Decorated building, with painted glass in an appropriate manner. It is also necessary in order to enable him to represent without inconsistency and contradiction, subjects belonging to a period later than the termination of the last of the four styles^c. But I conceive that its more extended adoption would be beneficial, by unfettering the artist from the trammels of conventionality, and leaving him free to pursue such a course as a deep and philosophical consideration of the whole subject would lead him to embrace, as best calculated to ensure a successful

^c It appears from the "Fifth Report of the Commissioners of Fine Arts," that they approve of the introduction of such subjects into glass paintings; and that they have in particular recommended

that certain windows of the New Houses of Parliament should contain a series of portraits from the Conquest, to the reign of William IV.

carrying out of the art of pure glass painting from the point at which the ancient artists left it.

I shall now attempt to define my idea of a new style more distinctly by offering a few suggestions as to its application.

I will first imagine the treatment of a glass painting intended for a Norman, or Early English building.

The nature of the modern material of course precludes any attempt at adopting as models the "medallion windows" of the Early English style, which partake so highly of the character of Mosaics; nor do I consider the abandonment of these designs at all to be regretted, since, amongst other objections, the pictures contained in them are, owing to their minuteness, in general quite indistinct when viewed from even a moderate distance. But other designs are afforded by this style, capable of suggesting many valuable hints to the modern glass painter. I allude in particular to the large figures which often occupy the whole, or the greater part of a single light. These are usually composed of pieces of glass nearly if not quite as large as those which occur in the glass paintings of the sixteenth century; and I am certain that an effect might be produced in modern glass, sufficiently resembling that of these works for all practical purposes, though of course not identical with it. I should say that the artist might either adopt the ancient design, and place a single figure in each light; or divide the window, if too large for this arrangement, into as many parts as might be necessary for the reduction of the figures to a scale proportionable to the building; filling it with two or more figures placed one above the other, or with rows of figures placed under arcades: or else occupy the whole, or some part of the window with a group of large figures. The last arrangement, though it may be unsupported by any ancient authority, would in skilful hands,

be unobjectionable in a glass painting avowedly of the nineteenth century, and which, according to my view of the case, the artist would be bound only to render conformable to the general character of the building. I presume that the artist would consider it proper to impart to his figures, whether single or in groups, that grand, severe, and classical character, borrowed from the Antique, which belongs to the figures in the glass paintings of the Early English style; without however imitating their rudeness, or imperfect drawing; and that he would select for their execution the deepest and most powerful colours, and those which most resemble the ancient in tint; employing them as far as circumstances would admit, as they are employed in Early English figures, pink glass for instance being used for the faces and hands, &c.

I also think that he might in painting the glass, unite the bold and strong outlines of the Early English style, with the stipple and transparent shading of the Perpendicular; for the use of deeply coloured glass would render the adoption of the first almost a matter of necessity, in order to ensure expression, and in a nineteenth century style it would not be an objectionable innovation to impart a greater degree of roundness to the figures than is usual in Early English glass paintings. I am at a loss to understand how the flatness of ancient Early English glass paintings is to be defended. It cannot be on any fancied harmony between the glass and the architecture, for Early English carved work is in general remarkable for its high relief. Indeed it is evident from the strength of the outlines, that the glass painters of the twelfth and thirteenth centuries strove to imitate this effect in their own works. I believe we are led to admire the flatness of Early English glass paintings simply by having associated it with the beauties of Early English architecture; without considering that it is but the

result of an imperfect degree of execution. The use of deep colouring is undoubtedly opposed to extreme contrasts of light and shade, and therefore a modern glass painting founded as suggested on the model of the Early English style, must necessarily be more flat than one founded on the model of the Perpendicular style; still I think the artist should endeavour to impart to the work the greatest degree of roundness which the means at his disposal will effect. In order however to keep up the character of the style, I apprehend that a greater quantity of clear and vivid lights should be left than would be the case in a Perpendicular glass painting^d. In the majority of instances, a coloured or white background diapered, such as indeed is recommended by Theophilus, and of which examples may be seen in Augsburg cathedral, and elsewhere, would probably render the introduction of ornaments round the figures wholly unnecessary; but if such necessity existed, I should say that the character and form of the ornament were matters entirely for the decision of the artist. It might perhaps be found that leaves of a simple form, such as those of the ivy or maple, are better adapted to the nature of modern glass than the conventional foliage of the Early English style, and their adoption might be preferable on another ground, the avoidance as much as possible, of anachronisms^e.

^d I hardly think that any objection can be raised against the substitution in these works of stipple shading for smear shading. It is not the texture of the shadows, but their form, which may or may not be an element of simplicity. A stipple shadow at a distance cannot be distinguished from a smear shadow, except indeed by its superior transparency; a circumstance, which, of itself, seems to afford a sufficient reason for the general adoption of stipple shading in all glass paintings.

^e An example of a nineteenth century window adapted to an Early English

building, is afforded by the great end window of the south transept, Westminster abbey, the greater part of which has already been painted by Mr. Nixon, the artist, who undoubtedly stands at the head of English glass painters. Without pretending to give any opinion on its merits, or demerits, either as a work of art, or as a glass painting; I cannot help regarding it with much satisfaction, as the commencement of a new and *artist-like* style of true glass painting, the first introduction of which may be fairly ascribed to Mr. Nixon, and his coadjutor, Mr. Ward.

The whole of the foregoing remarks have been made with reference to pictorial glass paintings only, but they are applicable, though in a less degree, to pattern glass paintings also.

Some patterns in the Early English style are, for want of the requisite material, at present utterly incapable of imitation: but there are others,—those for instance in which but little colour is introduced,—not liable to the same objection; especially if imitated in “pressed glass” according to Mr. Powell’s invention[†]. Patterns thus produced will be found in general more satisfactory than those painted by hand, and it seems probable that they would harmonize if placed in juxta-position, though not in the same window, with the pictorial works above mentioned. But this again is a question more properly left to the decision of the artist.

In like manner I would suggest that a due resemblance should be preserved between modern pictorial glass paintings designed for a Decorated building, and ancient Decorated glass paintings. Those subjects only should be selected as models, which are least Mosaic in character; and I would allow the same latitude to the artist in following them, as I have recommended in regard to Early English models. He might, according to ancient authority, introduce a large single figure into each of the lower lights of a window, or carry a general design across it independent of the mullions[‡]. But I think he would not be

Since the above-mentioned work was commenced, Mr. Nixon has in the east window of Snodland church, Kent, successfully adapted a nineteenth century design, to a late Gothic window; this work, considering that the new style is yet in its infancy, is of great merit. Another window is being completed on the same principles, by Mr. Nixon, for Christ Church, Bloomsbury. A few more such glass paintings as these, will,

I think, place the success of the new style beyond doubt. “*Magna est veritas, et prævalebit.*”

[†] See note at the end of this section.

[‡] There are plenty of authorities for this arrangement in ancient German Decorated glass; and in French mullioned windows of the Early English period, the same subject sometimes evinces a disposition to extend into more than one lower light. Both German

bound in any case to put his figures under canopies of architectural design, (which would lead to the adoption of Decorated details,) but might place them on coloured grounds, and surround them with a sort of frame-work of foliage, a preference being given to the ivy or maple leaf, somewhat like that which occurs in Decorated Jesse windows. Thus a window might be entirely filled in an appropriate manner, without resorting to the use of any Decorated architectural ornaments whatever, in case this should be considered objectionable. The artist, I apprehend, would take care to infuse the Decorated character of drapery, and attitude, into his figures, without however imitating either the bad drawing, or forced attitudes of the originals; and I should consider the employment of stipple shading, and a greater roundness of effect than an ancient Decorated figure displays, quite unobjectionable.

A similar difficulty to that before adverted to, might be felt in composing pattern windows to suit Decorated buildings. I should be sorry to object to the use of running

and French, as well as English glass, should be carefully studied by the glass painter, with a view to increase his knowledge of the general arrangements of each particular style. There can be no impropriety in borrowing an arrangement from foreign painted glass, even if no English example of it existed, provided it be translated into English (if I may be allowed the expression) by the adoption of English details: for nothing can, in general, be more objectionable than the employment in the windows of English buildings, of designs copied from French and German models, the details of which seldom harmonize with those of our own architecture.

I should perhaps declare once for all, that in recommending the adoption of designs extending into more than one light of a window, I am by no means insensible to the necessity, when *several* distinct subjects are intended to be introduced, of accommodating them as much as possible to the principal architectural

divisions of the windows. For instance, though in some five-light windows it might under the circumstances be advisable to fill the three central lights with one subject, and each of the outer lights with different ones; in others, consisting (so to speak) of two *pairs* of windows, divided by a central light, it might be better to fill the centre light with one subject, and occupy each pair of lights on its flanks, with another and larger design; as for instance, in the side windows of King's chapel, Cambridge. So a transom running across a window, might render it necessary to fill each tier of lights with a separate subject. Again, tracery lights are sometimes so divided into groups by the principal mullions, as to make a corresponding division of the design advisable.

The thickness of the mullion in some Early English windows would render it impossible to extend a design into adjacent lights more completely than was done by the ancient artists themselves.

patterns on white glass, designed on the same principle as the beautiful ancient Decorated running patterns; or to the employment of ornamented quarry patterns; or, in clearstory windows, of patterns simply composed of plain pieces of glass; provided a good material could be found in which to execute them. But this, as I have already stated, must be a question for the decision of the artist. I would not however advise the introduction into pattern windows of belts of canopies running across them, from a belief that some of the finest ancient Decorated windows are those which are wholly composed of white patterns, with or without the addition of a single shield of arms in each of the lower lights; and that an alternation of abruptly defined masses of white and coloured glass crossing a window like belts, is hardly to be justified on sound principles of taste; or at least would not produce a pleasing effect, unless the ancient materials were used. I should say, though of course I only throw this out as a suggestion, that in filling the windows either of a Decorated, or of an Early English building, with appropriate modern glass, an intermixture of pictures with white patterns is unadvisable: that each window should be either entirely a picture window, or else a pattern window: that either kind might, in accordance with ancient authority, be employed throughout the entire building to the exclusion of the other: or if a mixture of the two should be considered necessary, that it might be carried into effect, by confining the picture windows to the ends of the building, and the pattern windows to its sides; but this last would require the building to be of such a length as fairly to admit of curtailment: the inevitable result of employing dark windows at its extremities with light windows at its sides.

The ancient models might be followed more closely than has hitherto been recommended, in adapting glass paint-

ings to Perpendicular buildings. Such a general similarity of character exists between edifices in the Perpendicular style, that late Perpendicular glass paintings seem equally to harmonize with them all. Indeed, as has before been remarked, there is scarcely any other difference between glass paintings of the early and latter parts of the fifteenth century, than that occasioned by the tint of the glass. The same breadth and delicacy, both in figures and decorations, is observable in all works of this period, after the style had become thoroughly developed. I therefore see no impropriety whatever in introducing glass, painted after the models of the close of the fifteenth century, or even later, into any Perpendicular building. The painted windows of Fairford church, Gloucestershire, would harmonize in all respects, except their architectural details, with buildings of the time of William of Wykeham. The figures introduced into the glass at Fairford, possess the same Germanic character as the sculptured figures of the early part of the fifteenth century; which, unlike the glass paintings of that time, they equal in merit, owing to improvements in the art of drawing, by which at the beginning of the sixteenth century, artists were enabled to represent on a plane surface, the forms and inequalities actually produced in sculpture.

I am far from supposing that the drawing of the Fairford figures might not be improved upon, but their architectural character, especially as developed in the single figures, is so admirably suited to the position they occupy, as to appear worthy of imitation at the present day.

Whether or not it would be advisable to imitate the architectural details of these canopies, or of others of earlier date, is a question which I do not feel myself competent to decide. I hardly think that it would be possible without taking very great liberties with the rules of perspective, and of light and shade,—pardonable I should say under the

particular circumstances,—to produce the *effect* of the ancient canopies. Their value, however, consists not so much in their architectural excellence, as in the opportunity they afford the artist of introducing large masses of white glass into the picture, and of producing strong contrasts of light and shade. These objects might perhaps be equally secured by placing the pictures whether consisting of single figures or groups, in elegant bowers formed of the foliage of the vine, the soffits or ceilings of which might be shewn in perspective, and darkly shaded, so as to produce apparent depth, by bringing forward the front of the bower, and the figures beneath it, and throwing back the distant landscape behind them; on the principle partly of the Cinque Cento canopies at Brussels, and Lichfield, and of the Gothic foliated canopies in Munich cathedral, which are described in a former part of this work. Canopies or bowers of this description might from their unsubstantial and light appearance prove perhaps better suited to glass paintings than representations of solid stone-work.

There is perhaps no ancient Perpendicular arrangement which could not be successfully adopted at the present day. The figure and canopy window, or something resembling it, might be employed in the majority of instances with the best effect, especially in the windows at the sides of buildings; but the artist should, in my opinion at least, never scruple to use a design extending into more than one light of a window, whenever a complicated subject would render this arrangement necessary, in order to give sufficient size to the figures. Designs extending over the whole of a window are common enough in the Perpendicular style; nor is practically any ill effect produced, as might be anticipated, by their being cut by the mullions. Indeed it is surprising how little in reality the mullions interfere with the design. The eye traverses the picture without being

caught by them ; nor do I think that the appearance of the building itself suffers by reason of the design of the glass painting not strictly coinciding with the architectural divisions of the window. Such pictures are, no doubt, best suited for the extreme ends of a building, where they are calculated to produce an agreeable variety when contrasted with the somewhat monotonous design of the figure and canopy windows at its sides. This circumstance, and the distinctness of their parts, owing to their size, are, I apprehend, sufficient grounds of themselves to justify the use of designs, extended over the whole or a great part of a window.

The only improvement perhaps of which the technical mode of execution as practised at the close of the fifteenth century, and early part of the sixteenth, seems susceptible, is an increase in the thickness of the outline in those works intended to occupy distant positions. The ancient glass painters, although they often elongated their figures to counteract the shortening effect of perspective upon them when placed much above the eye, do not appear at any time to have varied the thickness of the outlines irrespectively of the size of the figures. This was unimportant until the introduction of the Perpendicular style of glass painting and its delicate mode of execution, which is not calculated to insure distinctness in the more distant figures. An instance of this may be seen in the portraits of Edward IV. and his family in the north window of the western transept of Canterbury cathedral. The features of these figures are quite lost to the eye when viewed from the steps leading to the choir. The remedy, an increased boldness of outline, or shadow,—for in glass painting this comes pretty nearly to the same thing,—is suggested by some Early English figures of about the same size as the last, which having been removed from the clearstory of the choir, into the

south window of the western transept, have been thus curiously enough placed at about the same distance from the steps in question, as the Perpendicular glass in the opposite window.

The same facility of adoption extends also to the ancient Perpendicular patterns, and to combinations of pictures and patterns in the same window. I hardly think that patterns more appropriate to the modern material than the Perpendicular could be devised, or that any great improvement in their form could be effected. Purely pattern windows would probably be more satisfactorily executed by Mr. Powell's machinery, than by hand; but, if figures were to be placed on white quarry grounds, I certainly think that the ornament should be painted by hand on the quarries. The German "round glass," from the curvature of its sides, certainly harmonizes better with the flowing lines of pictures placed in juxtaposition with it, than the rigid cutting lines produced by quarries. Round glazing therefore appears to be more appropriate than quarry glazing, where part only of a light is occupied with a picture. Both quarry and round glazing are thus employed in the windows of St. Peter's church, Cologne; the relative merits of the two systems may therefore be determined by actual inspection. Round glass is a manufacture easy of revival; it affords of itself a very valuable means of ornament^h. I shall however conclude by reiterating my opinion that the decorative, as well as the pictorial part of the work, are matters equally to be decided upon by the artist.

^h The round glass in the windows of the new library at Lincoln's Inn, was copied by Mr. Powell from some round glass of the close of the fifteenth century, which I bought at Nuremberg, in the autumn of 1844. It has been imitated with tolerable exactness, except in the size of the *bull's eye*; which in the ori-

ginal glass is very small. As a first attempt the modern glass must be considered a very creditable performance, and much praise is due to Mr. Hardwick for his boldness in introducing a comparative novelty from a conviction of its beauty.

Hardly any variations from the ancient models would be necessary in following the latest Perpendicular, and Cinque Cento styles: further than correcting in the latter the generally too ornamental character of its figures, and their draperies, and substituting for it a severer mode of treatment. No ornaments perhaps could be devised, which would harmonize better with Palladian buildings, than those of the Cinque Cento style: and they, as well as those of the late Perpendicular, are quite adapted to the nature of the modern material. Care should be taken not to imitate the too opaque execution of the later Cinque Cento glass paintings. The finest specimens of handling are to be found scarcely later than 1535,—certainly not later than 1540. After this the blackness of the shadows betoken the deterioration of the art.

Round glass, or geometrical glazing with appropriate borders, would still, as formerly, afford the means of producing Cinque Cento pattern windows. I think that a preference should be given to round glass on account of its richness, the beautiful play of light it occasions, and its pleasing silvery tone.

The above suggestions have been thrown out, simply for the sake of rendering my recommendation of a new style of glass painting more intelligible: it is therefore unnecessary for me to apologize for their incompleteness, or to disclaim any presumptuous intention of laying down rules on the subject.

It sufficiently appears I hope, that in advocating a new style, I by no means advise any unnecessary disregard of the rules of the old styles. Indeed I should consider an infringement of the rules of style, in some cases as objectionable in an original modern glass painting, as in a copy of an old one. For instance, the introduction of a coat of arms charged with complicated bearings, or surmounted

with a helmet and mantling, into a modern glass painting, designed for an Early English building, would seem to me as inappropriate as its insertion would be into a copy of a thirteenth century pattern window; not indeed upon the narrow ground that the thirteenth century affords no precedent of the kind; but because the crowded shield, the fluttering mantling, and its accompaniments, would be unsuited to the simplicity of the rest of the work. For the same reason it might in many cases be desirable to attend to the minutiae of costume, of armour, &c., and even to the selection of the Black, or Roman letter for inscriptions¹. Indeed any breach of style would be reprehensible, which tended to impair the general harmony of the design; the security and maintenance of which ought to be the principal object of all rules of style whatever.

The adoption of a new style of glass painting is a project, which it is to be expected will encounter much opposition, especially from all parties interested in upholding the present corrupt system: for if carried into effect, it will inevitably render not only the invention and execution, but also the selection of designs for painted windows, matters of far greater difficulty than at present. The mere imitator will no longer be able to shelter his ignorance of the higher principles and rules of art, under a scrupulous and literal conformity with the petty details of conventionality; nor can he any longer be upheld with impunity by his patrons, the soi-disant connoisseurs, who sneer at real works of art from sheer incapacity to appreciate their merit, and flipantly bring forward their own miserable conceits as unquestionable authorities. Both the artist, and the critic, in order that their opinions may be generally respected, must

¹ I mean the *common* Black, or common Roman letter,—for I see no use in inscriptions, which none but the initiated

can read. For a like reason I should say that an inscription in English, is preferable to one in Latin, or French.

learn to estimate a pictorial glass painting, not by its conventional character, but in proportion as it exhibits those essential qualities which will entitle it to be considered a work of art, as well as a perfect glass painting.

A degree of knowledge will therefore be required of both these parties far beyond that obtained by a little industry in tracing ancient painted glass. They must acquire a thorough acquaintance with the deep principles of each style of ancient glass painting, and of the defects and excellencies of the ancient glass painters: to which must be added a competent knowledge of art, derived from an acute, refined, and unprejudiced observation, not only of the works of the middle ages, but of the great masters of the sixteenth century, and of the invaluable relics of classical antiquity.

There will, we may be sure, be no lack of excellent glass painters in this country, so soon as *artists* find it their interest to direct their talents and skill to this hitherto neglected art. Every branch of the fine arts is so overcrowded with practitioners, that many artists, if properly encouraged, would be glad to adopt glass painting, and would rejoice at the new field of enterprise thus opened out to them.

The chief difficulty is, in what way to evince to the artistic world, a sincere desire for good glass paintings.

The only mode seems to be, by throwing open all important works to public competition; and appointing artists of known reputation, and who have themselves devoted some attention to glass painting, as judges, both of the rival designs, and of the specimens of glass painting submitted to them.

Public competitions in oil painting, architecture, or sculpture, are in general to be deprecated; because artists of established fame will not condescend to enter the lists.

But it is a different matter, when either a branch of the fine arts is newly taken up, or an effort made to establish it on a new footing. In this case a public competition affords perhaps the surest means of enabling those most worthy of patronage to become known. The experiment has been, successfully I believe, tried with regard to fresco painting ; and I trust it may ere long be tried with regard to glass painting.

I have already intimated my dislike to modern glass paintings exhibiting the exaggerations and deformities, which are so common in ancient glass paintings. I should further caution the glass painter who seeks to attain real eminence in his profession, against being betrayed into the imitation of models, which though free from absolute bad drawing, are defective in character and expression. Such models are afforded in abundance by the modern German school of painting, and by its English imitators. The German school, some artists of deserved reputation being excepted, has committed the fundamental error of neglecting the study of nature, and taking for its models the masters of an age when art was still imperfectly developed. It is therefore less likely to advance art, than to cause it to recede from the high point which it had attained in the sixteenth century ; and it does not appear that its most successful followers can be ranked higher than able and ingenious cultivators of a vicious style. Amongst the most striking defects in the productions of this school, and of its imitators, are an insipidity of expression, and a want of individuality in the figures. In some works the distinction of sex is scarcely distinguishable except by the size and dress, and can rarely be guessed at from the features, or the form of the figure. Martyrs are apparently devoid of sensation, and angels are reduced to mere automata ; our Saviour Himself is

not unfrequently represented like a spectre. This seeming apathy is doubtless intended to denote in the first case, a sublime and perfect resignation to the Divine will; in the second, the exercise of an irresistible power, which requires no effort in the person who displays it; in the last, the profound and awful majesty of a Divine Being: but in their treatment of these subjects the German artists, and their English disciples more especially, seem obnoxious to the criticism, that although they most successfully denude holy personages of all earthly expression, they fail to clothe them with a spiritual one^k.

Notwithstanding its defects however, the modern German school appears to meet with many admirers, because it is supposed to be deeply imbued with the spirit of what is termed "Catholic art." But this alone is no recommendation of its artistical character; many of the rudest medieval figures being admitted to possess a "Catholic feeling" as deep as that which pervades the productions of the modern German school. The merits attributed to Catholic art, are an earnestness and depth in the expression of religious feeling, which (according to its advocates) the great masters of the sixteenth century, and their followers, the cultivators of "Pagan art^l," are incapable of attaining, or at least never have attained, and in comparison with which grace, and correctness of design, ought to be regarded as "beggarly elements."

This view of Catholic art seems to be chiefly, if not entirely, founded on narrow and exclusive religious grounds^m;

^k See "Quarterly Review," No. 154, p. 330.

^l The phrase "Pagan art," is here used to indicate the art of representation as refined and improved in the sixteenth century by the study of classical models. It is rather amusing that the same charge of "inanimate insipidity" which has been brought and with truth against

many antique statues, (see Reynolds, Discourse viii.), applies with greater force to the works of those moderns who regard with distaste the remains of heathen antiquity, and the subsequent improvements in art.

^m It is sometimes carried so far as to regard Protestantism as incompatible with religious art, a prejudice which is

and subjects art rather to the uncertain standard of devotional susceptibility, than to any definite principles of taste and criticism. Indeed it might be supposed from much of the language employed on the subject, that there was a necessary repugnancy between the expression of Christian sentiment, and the employment of technical skill; an inference which though to a certain extent contradicted by the Count de Montalembert in his remarks on the works of Overbeckⁿ, is supported by the same author's condemnation of Anthony Pollajuolo, for introducing into painting the element of anatomical study, and of Raphael, and Michael Angelo, for pursuing it in their works^o. An

somewhat inconsistent with the fact that the great model of German Catholic art, Albert Dürer, produced his noblest work, "The Four Apostles," after his adoption of the Protestant faith. See Kugler, "Handbook of Painting," part ii. p. 149, edited by Head.

I should add that by "Catholic art" is meant exclusively and distinctively "Roman Catholic art." This is pointedly and clearly put by the Count de Montalembert in his letter to the late Cambridge Camden Society, quoted in Weale's "Quarterly Papers," part vi. p. 36. In another work entitled "Du Vandalisme et du Catholicisme dans l'Art," Paris, 1839, by Count Montalembert, it will be found that "Christian" and "Catholic" are used as synonymous terms.

ⁿ "— tous ceux qui ont vu et compris des tableaux ou des dessins d'Overbeck, ne pourront s'empêcher de reconnaître qu'il n'y a là aucunement copie des anciens maîtres, mais bien une originalité puissante et libre, qui a su mettre au service de l'idée catholique tous les perfectionnemens modernes du dessin et de la perspective ignorés des anciens. L'âme la mieux disposée à la poésie mystique n'en est pas moins complètement satisfaite, comme devant le chef-d'œuvre le plus suave des anciens jours, et l'intelligence la plus revêche est forcée de convenir qu'il y a même de notre temps la possibilité de renouer le fil des traditions saintes, et de fonder une école vraiment religieuse, sans remonter le cours des âges et sans cesser d'être de

ce siècle."—"Du Vandalisme et du Catholicisme dans l'Art," p. 178. These remarks are satisfactory inasmuch as they prohibit the artist who adopts the barbarisms of Gothic art, from pleading the necessity of adhering to "Catholic examples," and defending the badness of his drawing by the sacredness of his subject.

^o "Antoine Pollajuolo, qui eut la triste gloire d'introduire dans la peinture l'élément des études anatomiques, et qui s'en servit le premier pour profaner ce noble sujet du martyre de Saint Sébastien, qui l'a été tant de fois depuis."—"Il préparait ainsi les voies à Michel-Ange, qui ne trouva rien de mieux qui de présenter les saints et même les saintes dans un état de nudité complète, dans ce fameux Jugement dernier."—"Du Vandalisme et du Catholicisme dans l'Art," p. 93.

"Aussi à la fin du xv siècle, après la mort du Beato et de Benozzo, la suprématie de l'art chrétien est dévolue à l'école ombrienne dans la personne de Péruugin, de Pinturicchio, et de Raphaël avant sa chute, glorieuse trinité qui n'a jamais été et ne sera jamais surpassée."—Ib., p. 104.

"Nous admettrions volontiers avec M. Rio qu'il (Raphaël) a porté l'art chrétien à son plus haut degré de perfection, si nous n'étions attristés et révoltés, même en présence ce ses chefs-d'œuvre les plus purs, par la pensée de sa déplorable défection." "Le rapprochement entre la Dispute du Saint Sacrement

objection to the study of nature seems to come with a singular bad grace from so ardent and enthusiastic an admirer of ancient Christian art as the Count de Montalembert, when we consider what close and servile copyists of nature the medieval artists really endeavoured to become.

It is sufficient to refer to the Chinese-like exactness^p with which in the paintings of the early masters, jewellery, and the texture of the stuffs composing the draperies, are imitated, the latter in many instances even to the very stitches: to the scrupulous delineations of each single hair of the eyelashes and eyebrows, &c. the stiff *map-like* delineation of the meagre bodies and attenuated limbs of saints, and ideal personages, &c.

Hence we may conclude that it was from mere ignorance of the true method of representation, that the medieval artists failed of arriving at that truthful simplicity with which nature was more faithfully rendered in the periods of more advanced art. They laboured like children to attain a minute imitation of unimportant detail because they knew no better^q. Had the early artists possessed the same degree of skill and knowledge as the painters of the sixteenth century, they would likewise have imparted to their delineations of the

et le poème du Dante, est naturel et juste: cette fresque est en effet un véritable poème en peinture. Pourquoi faut-il qu' aussitôt après l'avoir terminée, Raphaël ait cédé aux suggestions du serpent? Comme dit notre auteur [M. Rio] 'le contraste est si frappant entre le style de ses premiers ouvrages et celui qu'il adopta dans les dix dernières années de sa vie, qu'il est impossible de regarder l'un comme une évaluation ou un développement de l'autre. Evidemment il y a eu solution de continuité, abjuration d'une foi antique en matière d'art, pour embrasser une foi nouvelle.' Cette foi nouvelle n'est autre que la foi au paganisme et au matérialisme, qui a eu pour révélation les fresques de l'histoire de Psyché, et la Transfiguration."—*Ib.*, pp. 112, 114.

^p The parallel between Chinese art and middle age art is much closer than would at first be supposed. Many a portrait of a Chinese lady might be transformed into a highly Catholic saint, by simply substituting a book for the fan, and slightly altering the *form* of the ornaments on the robe. The face with its long eyelids and scarcely marked eyebrows and conventional expression,—the careful exactness with which the ornaments on the drapery, and the little flowers and sprigs at the feet of the figure are drawn, all have their counterparts in the European paintings of the fifteenth century. The extent to which an artist may avail himself of such imperfect models, is well defined in Reynolds' sixth Discourse.

^q See Barry's sixth lecture.

human figure, that perfection of beauty which affords the best proof of the soundness of the judgment exercised by the artist of a more cultivated mind, in selecting, through his accurate knowledge of nature, the most perfect forms as worthy of imitation^{*}: and like them have expressed the truest Christian emotions, with that fulness and completeness of meaning, which cause some at least of the religious works of the great masters so powerfully to excite the sympathy of the spectator.

It has been often observed that the later paintings of Raphael are inferior in depth of religious feeling, or holiness of expression, to his earlier works, in which he has more closely followed the established types. Admitting this to be true, it affords no reason for preferring an imperfect, to a more perfect method of representation; which must, of course, be capable of more perfectly expressing a sentiment, whether devout, or otherwise, really felt by the artist. In the religious works of Leonardo da Vinci, for instance, both excellencies are combined.

It seems therefore absurd to suppose that scriptural subjects cannot be adequately represented without retrograding to an imperfect style of art. Such a notion can I think only be attributed to the fashionable, and therefore exclusive and indiscriminating admiration of middle-age art, and customs. Such admiration will most probably, like other fashions, soon pass away. The best established opinions, are, it is true, liable to be reversed by the progress of enquiry, and knowledge, but it is not probable that standards of excellence, like the works of the great masters, which have been recognised during three centuries, will either be subverted, or long neglected. Judgments which have been examined and confirmed by successive generations, and in

^{*} The distinction between servilely copying Nature, and adopting her as a guide, is repeatedly pointed out in

Reynolds' discourses, especially in the third, fourth, and fifth Discourses.

various countries, must be supposed to rest on deep-seated principles; and hence the artist who desires to please long, and generally, and to obtain a permanent reputation, will do better to adhere to these, than to be guided by opinions which may fairly be attributed to partial views, or to the favour with which startling novelties are apt for a time to be entertained.

I cannot conclude the present work without some endeavour to promote the preservation of such specimens of ancient painted glass as we still possess. The value of these remains to the student and artist sufficiently appears when it is recollected that they constitute the sole evidence of the state and progress of the English school of glass painting. We cannot repair the injuries which have reduced the original specimens of the art to such scanty numbers, and rendered them, in the majority of instances, little better than a mere collection of fragments: but we may testify our regret at what has been lost,—a loss that so materially retards and embarrasses our investigations,—and our appreciation of what remains, by attempting as far as possible to arrest the further progress of destruction.

The ordinary effect of time in decomposing the surface of the glass, is a cause of decay which we cannot, and indeed should not, attempt to counteract,—for the remedy would in all probability prove worse than the disease. But glass paintings are subject to other and more serious injuries, which a little care and judgment may prevent. From wilful and wanton destruction, it is true there is little to be apprehended. The iconoclastic mania has happily passed away; the most zealous reformer sees in an ancient picture only a specimen of ancient art, though its subject abstractedly considered may be one to which he entertains the most profound antipathy; and as for the mischievous attacks of the childish and ignorant, they may be effectually resisted

by an external wire guard. The great danger to which a glass painting is exposed, arises not from these sources, but either from neglect, or, from well-intentioned, but mistaken zeal for its preservation and restoration.

It is difficult to say which of these evils is the more to be deprecated. There can be no doubt that innumerable glass paintings have already perished or become mutilated through the neglect to keep their leadwork and saddle-bars in repair, or to defend them against injuries from without by a wire guard; and that many others are at present in jeopardy for want of similar precautions: but I am sorry to add that an almost equal amount of damage has accrued to these works, in many cases, either through *restorations* conducted on false principles, or their unnecessary removal from their original situations into other windows.

Painted glass loses so much of its interest and value in every respect, when torn from its original position, that this measure should never be resorted to unless for the purpose of better preservation. It may sometimes be advisable to collect into one window all the little fragments of painted glass scattered about a building, with the view of protecting them there with a wire guard; but the removal of ancient painted glass from one window into another merely for the sake of improving the general appearance of the building, appears to me wholly unjustifiable.

The injury thus committed is however trifling in comparison with that arising from such "*restorations*" as are founded on the desire of converting a ragged looking and mutilated glass painting into a slightly ornament. The restoration (as it is termed) of an ancient glass painting to its pristine beauty, would in the majority of cases be more truly designated the premeditated *destruction* of an original work. It is generally incompatible with that conscientious preservation and retention in its original place of every por-

tion of ancient glass, which ought to be the essential and paramount object of all real restorations. By far the greater number of ancient glass paintings are valuable, rather as specimens of the art at particular periods, than on account of their intrinsic merit. In this point of view, every fragment possesses a degree of interest quite independent of its size, its effect, or the subject it represents, and therefore, though apparently insignificant, should by no means be cast aside, nor should a modern copy, however accurately executed, be suffered to usurp its place. With such restorations as scrupulously preserve the original glass, and admit of no more modern painted glass than is requisite to supply the deficient parts of a design, clearly indicated by the portion of it which remains, little or no fault can be found. But when they are carried beyond this point, and modern glass is inserted, not on the direct authority of the dilapidated work itself, but merely according to the analogy afforded by other ancient specimens, they are open to serious objections. They diminish or altogether destroy the value of the work as a specimen of ancient art, and not only mislead the unpractised student, who is incapable of discriminating between ancient and modern glass, but, if engravings or written descriptions of the window are given, may impose on the most experienced antiquary, who has not an opportunity of examining the glass personally. In such restorations also great inconsistencies occur. As a general rule therefore, it is prudent, and for the sake of corrupting as little as possible the sources of antiquarian knowledge, very desirable to abstain altogether from restoring the deficient parts of a glass painting, except where the original work affords a model and guide according to which such deficiencies can be supplied.

Attention to the state of the lead and iron work of painted windows, is one of the simplest and least objection-

able modes of ensuring their preservation. The iron-work may generally be expected to be found in good condition, but many glass paintings still retain their original lead-work, which through age is in a very decayed state, as is indeed manifested by the work *bagging*, or bulging out in places. In many windows, the glazing panels, though their lead-work is in sound condition, are very insecurely attached to the saddle-bars, and may be observed in consequence to rock backwards and forwards with the wind, causing the glass to rattle violently, and loosening it in the lead-work.

The destruction of an entire glazing panel is the almost inevitable result of its breaking loose from the saddle-bars; while defective lead-work not only occasions the glass to be blown in and lost piecemeal, but is often apt to induce theft: persons not possessing high principles of honesty being too often tempted to appropriate that which seems to be neglected and abandoned by its owners.

Simple as it appears to be, there is no operation perhaps which requires greater care and patience than the releading of an ancient painted window: and not every workman is competent to undertake the task. Not only should the relative positions of the pieces of glass be accurately preserved, but the course of the original leads should be adhered to, even where the painted glass has dropped from them, and been lost, since this may often afford a clue to the original design. Narrow leads should always be used in repairs, and it would be well perhaps if in all cases of releading, the old original lead-work was deposited in a place of safety, as besides being a curiosity of itself, its form might serve to correct any mistake that might have arisen in the releading.

NOTES.

M. Bontemps, in the pamphlet to which I have already referred, ante p. 271, note (m), agrees with me in the opinion that the effect of a thirteenth century glass painting has not yet been attained in any modern work; and in condemning the practice of seeking to produce this effect by dirtying and obscuring the glass. He speaks with marked contempt of the process of making up windows, by means of copies from various ancient examples; and of servilely imitating the defective drawing of the old masters. Finally he agrees with me in thinking that glass painting should be executed in accordance with the improved taste, and intelligence of the present age; and in the opinion, that in order to succeed, glass painting must be studied and cultivated by *artists*: this last point indeed he regards as the one thing needful for the perfect restoration of the art.

M. Bontemps' remarks on imitation, and the following of ancient models, are so pertinent that I cannot refrain from transcribing them.

"Un artiste, d'une valeur incontestable, a pensé qu'il pouvait faire du vitrail sans avoir étudié les anciens chefs-d'œuvre, sans connaître leur ornementation; il a eu la prétention, louable peut-être, de ne chercher l'inspiration qu'en lui: cela pouvait être admis dans les édifices d'un style où les vitraux n'avaient pas d'antécédents; mais dans une église gothique ce système ne pouvait qu'échouer; l'artiste a voulu d'ailleurs produire d'l'harmonie par des contrastes heurtés de couleurs brillantes et de teintes obscures, par des enlevages de lumière, et son vitrail, au lieu d'attirer, repousse et fatigue l'œil qui va chercher à se reposer sur d'anciens vitraux.

"Il en est d'autres qui ont cru qu'en copiant le dessin de la bordure d'un ancien vitrail et la mosaïque d'un autre pour entourer des médaillons à sujets d'un dessin raide et grimaçant, on admirerait ces fâcheux pastiches à l'égal des anciens vitraux; ils ont voulu ériger en principe ce qui n'était chez eux qu'impuissance de mieux faire; le peuple et les hommes de goût les ont reniés et ont dit: ce ne sont pas là les anciennes verrières de nos pères.

"D'autres, mettant aussi à contribution la riche ornementation des anciens, ont pensé que leurs médaillons devaient être d'un dessin correct; nous ne dirons pas qu'ils aient réussi, leur dessin manquait de fermeté, l'action n'était pas suffisamment indiquée; mais ils ont agi dans une bonne direction, car, nous le répétons, on peut faire de beaux vitraux sans

que les sujets soient choquants et un objet de ridicule pour le peuple ; c'est pour tous que les vitraux sont faits ; quand ils déplairont aux classes les plus nombreuses, le but ne sera pas atteint ; les vrais archéologues ne seront pas non plus satisfaits car ils comprennent que les vitraux, au xix^e siècle, doivent sans doute être faits pour la compréhension et l'édification des fidèles, et non pour la satisfaction particulière de quelques personnes qui ne veulent reconnaître le passé que quand on leur en rappelle les défauts, et qui d'ailleurs n'entrent dans l'église que comme curieux."—pp. 40, 41.

I have not yet had an opportunity of becoming acquainted with the recent works on glass painting by the Messrs. Ballantine of Edinburgh, and by Mr. Warrington the glass painter. Their existence was unknown to me until long after I had completed the present essay.

The statutes imposing heavy duties on glass, (now repealed,) hindered improvements in the manufacture of glass for pictorial purposes. I believe however, that we are indebted to one of them,—the 7th and 8th Vict., c. 25, § 10,—for the invention of "pressed glass," mentioned in the text, ante p. 288. This Act prohibited altogether the making of any *flint* glass into sheets six inches in length, and four in breadth, and upwards ; and thus compelled Mr. Powell, who had attained great eminence in the making of coloured flint glass, to turn his attention to stamping small pieces of it, in imitation of painted glass. This invention is still quite in its infancy, and susceptible of material improvement, and of very extended application as a means of ornament. Its mechanical nature has its value, not so much in the cheapness of the production, as on account of its tendency to create a well-defined line of demarcation between mere decorative works and the higher branches of glass painting.

The superiority of the pressed, or stamped glass, for patterns, over that painted by hand, consists in the roughness of its surface,—occasioned by the contact of the sheet with the mould,—which imparts to the glass, when seen at a little distance, a *richness*, and brilliancy of effect more closely resembling that of old glass, than what in general has been hitherto produced by any other modern expedient. Some glass, such as the ornamented quarries of the fifteenth century,—whose charm consists in their silvery appearance,—can I think, only be properly imitated in pressed glass. And for a long time I thought Mr. Powell would have had no rival in his imitations of the earlier white patterns. Such a

rival however appeared, shortly after these sheets were sent to the press, in Mr. W. Miller, of 32, Brewer-Street, Golden-Square, who has painted the wheel window, at the east end of Barfreston church, Kent, in *exact* imitation of Early English glass. It is true that this work principally consists of a white scroll pattern on a cross-hatched ground; but the material used has all the apparent substantiality, richness, and brilliancy of ancient glass, without any of the inherent defects of pressed glass; the pattern here, having been drawn by hand, being as sharp and clear as in an original example. This window is, on the whole, the most perfect imitation of Early English glass that I have ever seen, and reflects the greatest credit on its author, who has encountered, and overcome, no ordinary difficulties, which the numerous failures in imitating early glass by hand painting, abundantly testify.

APPENDIX (A).

A TRANSLATION OF THE SECOND BOOK OF THE "DIVERSARUM ARTIUM
SCHEDULA, THEOPHILI, PRESBYTERI ET MONACHI," WITH NOTES.

CHAPTER I.

ON THE CONSTRUCTION OF A FURNACE FOR WORKING GLASS.

If it please you to make glass, first cut up much beech wood and dry it well. Then burn it equally in a clean spot, and diligently collecting the ashes, be careful not to mix any dust or stones with them.

* This translation of Theophilus has been made from the edition published at Paris in 1843 by le Comte Charles de l'Escalopier with a French translation, and with an introduction by I. Marie Guichard. The entire treatise consists of three books. The first treats of painting, the second of the manufacture of glass, and the third of the working of metals, particularly with reference to the fabrication of sacred utensils. It was brought into notice by Lessing about seventy years ago. Having discovered a MS. of it in the Ducal library of Wolfenbüttel, of which he was librarian, he printed some extracts from the first book in an essay which it induced him to write on the antiquity of oil painting; the treatise of Theophilus affording considerable evidence that the invention of this practice is not due to John Van Eyck. In 1781 Raspe in his critical essay on oil painting printed the whole of the second book from a MS. in the library of Trinity college, Cambridge. In the same year the entire treatise was published with an introduction by Leiste¹. The text of this edition had been prepared by Lessing from the Wolfenbüttel MS., collated, as it seems, with another in the Pauline library at Leipsig, and was

printed in his lifetime, though he did not live to publish it. From this edition the second book, in that of 1843, is printed. Dr. Gessert in speaking of Lessing's edition, observes that it must be used with caution, as it occasionally destroys the sense of the original². He does not expressly say that he has compared it with the MS., and in the second book, the only one with which we are concerned, or to which perhaps his remarks are intended to apply, the obscurities are so few, that it is not probable that serious inaccuracies can exist in it. Perhaps therefore he merely alludes to errors of the press, of which undoubtedly there were several; most of these are corrected in the French edition.

In Lessing's edition an index of the chapters is printed. This index enumerates (between the eleventh and sixteenth chapters of the Paris edition and of the present translation) four chapters, which are wanting in the MS. and have the following titles:—

Cap. XII. de coloribus qui fiunt ex cupro et plumbo et sale³.

Cap. XIII. de viridi vitro.

Cap. XIV. de vitro saphireo.

Cap. XV. de vitro quod vocatur Gallien⁴.

¹ In the "Beiträge zur Geschichte und Litteratur aus den Schätzen der herzoglichen Bibliothek zu Wolfenbüttel Braunschweig," 1781, a work previously conducted by Lessing. It is printed in the "Bechster Beytrag."

² Den originaltext sinnstreuend entstellt. "Geschichte der Glasmalerei," p. 29, note.

³ Vide post note.

⁴ Vide post note (h).

Afterwards form a furnace Postmodum compone furnum
of stones and clay, fifteen feet ex lapidibus et argilla, longi-

In the Leipsig MS. the deficiency is thus noticed in a hand-writing more recent than that of the MS. *Hic deficit subtilior pars et melior et utilior totius libri pro qua, si quidam haberent, darent mille florenos*⁵. It is remarkable that in a MS. which was in the Nani library at Venice, and is described by Morelli⁶, these chapters are again deficient, though enumerated in the index. The MS. described by Morelli is of the seventeenth century, copied from one in the Imperial library at Vienna. Morelli was informed that there were two MSS. in this library, one of them of the twelfth century and imperfect, from which that which he describes was probably taken, the other of the seventeenth century. When this note was written it seemed but too probable that the four chapters were totally lost; the recent announcement of a new edition of Theophilus from a 'complete' MS. justifies a hope that this is not the case, and that they will soon be made public.

After the publication of Lessing's essay in 1774, those passages of Theophilus, which seem to prove the early practice of oil painting, attracted much notice, but the other parts of the treatise do not seem to have been equally attended to. Dr. Gessler however has recently given several extracts from the second book, in his "History of Glass Painting."

Of Theophilus himself nothing whatever is known except that he was a priest and monk, "*humilis presbyter, servus servorum Dei, indignus nomine et professione monachi*," as he qualifies himself in the introduction to the first book. His country and, what it would be far more important to ascertain, the age in which he lived are alike uncertain. With regard to the former it has been disputed whether he was a German or an Italian. M. Guichard thinks that he was a German: Lessing is also of this opinion, and conjectures that he may have been the same with Tutilo, a monk of St. Gall who lived in the tenth century, and who besides other accomplishments was "*cellator elegans et picturæ artifex*." This

conjecture, which has no stronger support than a supposed identity of the names Tutilo and Theophilus—an identity of which Lessing himself seems subsequently to have become less confident—is evidently entitled to very little weight in determining the age of Theophilus. Morelli places him in the twelfth century, but without any sufficient reason. The general opinion however is that he wrote in the tenth or eleventh century. From this opinion M. Guichard dissents. He thinks that the treatise was written in the twelfth or thirteenth century. This belief he founds on the accordance of the character and declared objects of the work with the features by which he conceives those ages to be distinguished in the history of art, its revival namely, its exclusive application to ecclesiastical purposes, and the increased taste for splendour in every thing connected with divine worship. Whatever weight there might otherwise be in this species of internal evidence, the date of the Wolfenbüttel manuscript is a decisive authority in favour of those who place Theophilus in the earlier period. This manuscript is said by both Lessing and Leiste to be of the tenth or eleventh century, and in the absence of any better founded doubts than those which are cast on their testimony by M. Guichard, we are not justified in rejecting it.

It is of course essential to M. Guichard's opinion that the antiquity of the Wolfenbüttel MS. should be disproved, and for this purpose he makes the following objections to the authority of Lessing and Leiste. "En 1774 le manuscrit de Wolfenbüttel était selon Lessing du xi^e siècle; en 1781 Leiste le faisait remonter jusqu'au x^e. . . . Lessing et Leiste ne désignent pas les particularités à l'aide desquelles ils ont fixé l'âge du manuscrit: il faut que ces particularités aient été très-légerement observées puisque pour celui-ci elles indiquent le xi^e siècle, et pour celui-là le x^e; enfin Leiste a laissé échapper une phrase qui infirme tout à la fois et sa propre opinion et celle de Lessing. Voici cette phrase, qu'on

⁵ Lessing, "Vom Alter der Oelmalerey," *Sämmt. Werke* 8. p. 361, Berlin, 1792. Dr. Gessler says in a hand probably of the seventeenth century.

⁶ *Codices MS. Latini Bib. Naniæ Venet.*, 1776.

in length, and ten in breadth,
in this manner.

tudine pedum xv et latitudine
x, in hunc modum.

nous permettra de citer textuellement 'Beyde (les manuscrits de Leipsick et de Wolfenbüttel) sind in gross Quart auf Pergament geschrieben und gleichen sich sehr in den Schriftzügen, so dass man sie wahrscheinlich in ein Jahrhundert versetzen muss' or, comme Lessing et Leiste datent le manuscrit de Leipsick du xiii^e ou du xiv^e siècle, il résulte de tout ceci une singularité impossible, c'est à dire, un livre (le manuscrit de Wolfenbüttel) écrit au x^e siècle avec l'écriture du xiv^e." A reference to Lessing and Leiste will shew that these remarks are perfectly unfounded. Not only is there no discrepancy between them with regard to the date of the Wolfenbüttel MS., for Leiste speaks of it as of the *tenth or eleventh* century, and Lessing in treating of its age expressly says that it has all the marks which the most rigid connoisseur of MSS. of the *tenth or the eleventh* century can ever require⁷, but, what is very important, Leiste, in the passage which is cited as destructive of the value of his and Lessing's opinion, is not speaking at all of the Leipsig MS., but is comparing the Wolfenbüttel MS. with one of Vitruvius in the same library. This is evident from the sentences which immediately precede and follow the above cited passage. They are literally as follows, and contain the first reference which Leiste makes to the Leipsig MS. "Feller adds that a manuscript of it (the treatise of Theophilus) exists in the Pauline library at Leipsig, and it is probably the same author who (in the 'Acta Erud. Mens.' Aug. 1690, p. 420) indicates its contents somewhat more exactly though imperfectly. Thus much however may be known from this notice, that this is the same work which is found in the library here (viz. Wolfenbüttel) among the Gudian MSS. after the Vitruvius. Both are written in large quarto upon parchment, and resemble each other very much in the writing, so that they must probably be placed in the same century. Both MSS. indisputably belong

to the rarest articles in the library *here*." Nothing can be clearer than this, and it perfectly accords with Lessing's account of the MS., who says that it is among the MSS. of Marquardus Gudius, and does not form a separate volume, but is bound up with the MS. of Vitruvius.

This notice of Theophilus and his work ought not to terminate without giving the concluding sentences of the introduction to the first book. Besides tending to shew the spirit in which the work was composed, they are remarkable for the enumeration of the arts for which various countries were then most celebrated, and for the testimony which they bear to the early excellence of France, in that art with which we are at present most concerned. In fact it is most probable that France (or rather Normandy) though it cannot claim the merit of having invented the art of glass painting, was the first country in which it was cultivated with success.

The passage I have just alluded to is as follows. "Wherefore, my dearest son, whom God has herein so highly blessed that those things are offered to you without price, which many acquire with intolerable labour, crossing the ocean at the extreme peril of their lives, suffering the hardships of hunger and cold, enduring a long slavery to the learned, and wearing themselves out with the desire of knowledge, long for this treatise with eager eyes, study it with a tenacious memory, embrace it with ardent affection, and if you diligently examine it you will find in it all the knowledge that Greece possesses in the kinds and mixtures of colours; Tuscany in inlaid-works, and the various kinds of niello; Arabia in malleable, fusible, or chased works; Italy in the various kinds of vases, and the carving, enriched with gold and silver, of gems and ivory; France in the precious variety of windows; and the skilful Germany in the delicate workmanship of gold, silver, copper, iron, wood, and stones⁸; and when you have

⁷ Vom Alter der Oelmalerey.

⁸ "Quidquid in diversorum colorum generibus et mixturis habet Grecia, quidquid in electorum operositate seu nigelli varietate novit Tuscias, quidquid ductili vel fusili vel interrassili opere distinguit Arabia, quidquid in vasorum diversitate seu gemmarum ossiumve sculptura auro et argento inelyta decorat Italia, quidquid in fenestrarum pretiosa varietate diligit Francia, quidquid in auri, argenti cupri et ferri lignorum lapidumque subtilitate sollers laudat Germania."—Instead of Tuscias—Russia, Russcia, Rusca, and Rutigia occur in the different MSS.

First lay foundations on both sides of the length, one foot thick, making a firm and level hearth of stones and clay in the midst, dividing it into three equal parts, so that two thirds be together, and one third by itself, divided by a wall placed breadth-wise.

Then make a hole in both fronts of the breadth, through which wood and fire may be put in; and building a wall all round, to the height of nearly four feet, make again a firm and level hearth throughout and let the dividing wall rise a very little [above it.] After which, make in the larger chamber four holes in one side of its length, and four in the other side through the middle of the hearth, in which the working pots may be placed, and two holes in the middle, through which the flame may ascend; and building up the wall all round, make two square windows, one hand in length and breadth, one in each of the two sides which are opposite to the holes,

Primum pone fundamenta in utroque longitudinis latere, spissitudine pedis unius, faciens larem in medio firmum et æqualem lapidibus et argilla, dividens eum inter tres partes æquales ita ut duæ partes sint per se, et tertia per se, divisa muro in latitudine posito.

Deinde fac foramen in utraque fronte latitudinis per quod possint ligna et ignis imponi, et ædificans murum in circuitu usque ad latitudinem^b pene quatuor pedum, fac iterum larem firmum et æqualem per omnia, et sine murum divisionis aliquantulum ascendere. Post quæ fac in majori spatio quatuor foramina in uno latere longitudinis et quatuor in altero per medium laris, in quibus ponantur vasa operis duoque foramina in medio per quæ flamma possit ascendere, et ædificans murum in circuitu, fac duas fenestras quadras, longitudine et latitudine unius palmi, in utroque latere contra foramina unam, per quas vasa imponantur et ejiciantur cum his, quæ in illis

repeatedly read all these things, and have committed them to your tenacious memory, recompense me for my instruction, by praying to God, as often as you make a good use of my labours, for His mercy towards me. He knows that it is neither from the love of man's applause, nor the desire of earthly reward that I have written what is herein contained,

and that I have kept back nothing valuable out of jealousy or envy, but that for the increase of the honour and glory of His name, I have endeavoured to supply the wants, and have consulted the advantage of many."

^b I have translated this word as if it were a misprint for "altitudinem."

through which windows the pots may be put in and withdrawn with whatever is put into them. Make also in the smaller chamber a hole through the middle of the hearth, close by the middle wall, and a window of the size of a hand-breadth near the outer wall of the front, through which what is needed for the work may be put in and taken out. After you have thus ordered these matters, make the inner part with the outer wall into the likeness of an arched vault, internally barely more than the height of half a foot, so as to make a hearth at top level all over, with a ledge placed round it three fingers in height, so that whatever is put upon it belonging to the work or utensils may not fall.

This furnace is called the working furnace^d.

^c I have translated this word as if it were a misprint for "fornicis."

^d I have endeavoured in vain to form a satisfactory idea of a working furnace from the above description, the obscurity of which is so contrary to the usual style of Theophilus, who generally writes like an eye-witness, and not as a mere compiler, that I am inclined to suspect some alteration or corruption of the text in this place. I have therefore contented myself with giving above a literal translation of the original Latin, which is printed in a parallel column for the satisfaction of those who may consider further investigation desirable. No reference is made to the working furnace except in the fourth and last chapters of the second book of the treatise, and these throw but little additional light on the subject.

mittuntur. Fac etiam in minori spatio foramen per medium laris juxta parietem medium, et fenestram ad mensuram palmi juxta parietem frontis exteriorem, per quam possit imponi et assumi quod necessarium est operi. Postquam hæc ita ordinaueris, fac partem interiorem cum muro exteriori in similitudinem fornacis^c arcuarii interius altitudine modice amplius pedis dimidii, ita ut superius larem facias æqualem per omnia, cum labro altitudine trium digitorum in circuitu posito, ut quicquid operis vel utensiliorum superponitur non possit cadere.

Iste furnus dicitur clibanus operis.

The furnace described by Eraclius, "de coloribus et artibus Romanorum," a MS. of the thirteenth century, [printed at the end of Raspe's "Essay on Oil Painting,"] consisted of three compartments [arcæ] of unequal size. In the centre, which was the largest compartment, the glass was made in two small pots [mortariola] placed, as it would appear, on the floor of the furnace, on which also the fire was kindled. The glass was put into and taken out of the pots, through an aperture left for that purpose in each of the outer walls of the compartment. One of the other compartments was used for making the *frit*; and the other for baking the pots before they were put into the working furnace.

The process of making glass is at the present day conducted on the same prin-

CHAPTER II.

OF THE ANNEALING FURNACE.

Make also another furnace, ten feet long, eight wide, and four high. Make in one front an opening for putting in wood and fire; and in one side a window of the size of one foot, for putting in and taking out what may be necessary; and within a firm and even hearth. This furnace is called the *annealing furnace*, [clibanus refrigerii].

CHAPTER III.

OF THE FURNACE FOR SPREADING; AND THE IMPLEMENTS
FOR THE WORK.

Make yet a third furnace six feet long, four wide, and three high, and an opening, a window, and a hearth as above [men-

ciple as in the times of Theophilus and Eraclius, but in differently constructed furnaces, and on a far more extended scale. The most improved form of a modern working furnace, is a circle of about sixteen feet in diameter, covered by a dome, the crown of which is raised about five feet from the floor of the furnace on which the pots stand. Ten pots, each capable of containing from eighteen cwt. to a ton of glass, are placed round the inside of the furnace, close to the wall, through which are holes communicating with the pots. In the middle of the floor of the furnace is a large grating, which supports the fire, and admits a current of air to pass through its bars. Draft holes opening into flues, are made through the sides of the furnace near the pots, by which the heat and flames are brought to act more intensely on the pots and their contents, and through which the smoke &c. is carried off. In general all these flues open into a huge conical chimney, built above the furnace to the height of eighty or ninety feet;

the chief use of which is, to prevent annoyance to the neighbourhood from the smoke. See a more detailed account of a modern working furnace in Dr. Lardner's Cabinet Cyclopædia, "Porcelain and Glass Manufacture," p. 155 et seq.

In the Encyclopæd. Brit., sixth ed., art. "Glass," a furnace is described nine feet in diameter, the chief peculiarity of which is, that the fire is made in a vaulted chamber, and ascends through holes in the roof into a vaulted chamber above, in which the pots for the glass are placed. The flame and smoke escape through a hole in the vault of the upper chamber. This kind of working furnace, which appears to bear some similarity to that mentioned above by Theophilus, is I believe now disused. It is almost identical with one originally described in Agricola, "de re metallica," a work of the first half of the sixteenth century. See Holbach, "Art de la Verrerie," 4to. Paris, 1752.

tioned]. This furnace is called *the furnace for spreading and flattening*, [clibanus dilatandi et æquandi].

The implements necessary for this work are, an iron tube two ells long, and of the thickness of an inch; two pair of tongs of wrought iron at one end; two iron ladles; and such other wooden and iron tools as you please.

CHAPTER IV.

OF THE MIXTURE OF ASHES AND SAND.

These things being thus arranged, take logs of beech wood thoroughly dried in smoke, and light a large fire in each part of the larger furnace [in majori furno ex utraque parte]. Then taking two parts of the ashes of which we have spoken above, and a third of sand, carefully purified from earth and stones, which sand you shall have taken out of water, mix them together in a clean place. And when they have been for a long time and well mixed together, taking them up with an iron trowel, put them in the smaller part of the furnace, upon the upper hearth [in minori parte furni, super larem superiorem], that they may be roasted [ut coquantur]: and when they have begun to grow hot, immediately stir them, lest they chance to melt by the heat of the fire, and run into balls. Do this for the space of a day and a night*.

* Contrary to the direction contained in this chapter the frit is now formed into a mass; and such was the more ancient practice, as appears from Pliny's account of the manufacture of glass—"Continuis fornacibus, ut æs, liquatur massæque fiunt colore pingui nigricantes . . . Ex massis rursus funditur in officinis tinguiturque. Et aliud flatu figuratur, aliud torno teritur, aliud argenti modo cælatur." And subsequently—"Arena alba . . . quæ molissima est, pila molaque teritur. Dein miscetur tribus partibus nitri pondere vel mensura,

ac liquata in alias fornaces transfunditur. Ibi fit massa, quæ vocatur ammonitrum¹: atque hæc recoquitur et fit vitrum purum, ac massa vitri candidi."—Lib. xxxvi. ch. 66. It might be inferred from Eraclius that the same practice obtained in his time, but on this point his authority is of no value. This part of his treatise is copied almost verbatim from Isidore of Seville, and the account of glass in Isidore is again taken with very slight variations from Pliny.—Isid. Etymolog., lib. xvi. ch. 16.

¹ Ammonitrum ab ἄμμος arena, et νίτρον nitrum. Hodie opifices Fritta nuncupant teste Cæsalpino.—Note to Delphin Ed.

CHAPTER V.

OF THE WORKING POTS, AND THE MODE OF FUSING [ET DE
COQUANDO] WHITE GLASS.

Take white clay of which earthen pots are made, dry it, and pound it carefully, and having poured water upon it, macerate it strongly with a piece of wood, and make your pots. Let these be wide at the upper part, and narrow at the lower; and have round the mouth, a small lip bent inwards. When they are dry, take them up with the tongs, and put them into the openings of the heated furnace adapted for this purpose [in foramina furni candentis ad hoc aptata]. Take up with the ladle the mixed roasted ashes and sand, and fill all the pots in the evening; adding dry wood during the whole night, in order that the glass produced by the fusion of the ashes and sand may be completely fluxed [ut vitrum ex cineribus et sabulo liquefactum, pleniter coquatur] ^f.

CHAPTER VI.

HOW TABLES OF GLASS [VITREÆ TABULÆ] ARE MADE.

In the morning at the first hour, take an iron tube, and if you wish to make tables of glass, put the extremity of it into a pot filled with glass: when the glass adheres to it, turn the tube in your hand until there is conglomerated round it as much as you want. Then draw it out, put it to your mouth and blow gently. Presently remove it from your mouth, and hold it near your cheek, lest in drawing in your breath you should draw flame into your mouth. You should have a flat stone before

^f The pots generally used at the present day are not open but covered at top, having only a small orifice on one side through which the glass is put in and taken out. By this means the contents

of the pots are completely defended from the dust and dirt of the furnace. A representation of a pot is given in Dr. Lardner's Cabinet Cyclopædia, "Porcelain and Glass Manufacture," p. 159.

the window [of the furnace], on which you will gently beat the hot glass, that it may hang equally on every side: and immediately and with speed blow frequently, and as often remove [the tube] from your mouth. When you perceive that the glass hangs like a long bladder, hold its extremity to the flame, and the end immediately becoming melted a hole will be visible in it. Take a piece of wood formed for this purpose, and make the hole as large as [the bladder of glass] is in the middle, then join its lips together, viz., the upper part to the lower, so that on either side of the juncture an opening may be visible. Immediately touch the glass near the tube with a piece of moist wood, shake it a little, and it will separate [from the tube]. Then heat the tube in the flame of the furnace, until the glass which adheres to it melts, and quickly put it to the two lips of the glass which have been joined, and it will adhere to them. Immediately lift it, and put it in the flame of the furnace until the hole from which you first separated the tube melts. Take a round piece of wood, and widen this hole as you did the other. And wrapping the edges of the glass together in the middle separate the glass from the tube with a piece of moist wood, and give it to an attendant, who having inserted a piece of wood into the opening [*inducto ligno per foramen ejus*] will carry it to the annealing furnace, which should be moderately heated.

This kind of glass is pure and white. Work off like portions of glass in the same manner, and in the same course, until you have emptied the pots^s.

^s The word "table" is applied at the present day to any flat sheet of glass. It occurs in this sense in many of the statutes which imposed duties on glass, as for instance, the 2nd and 3rd William IV. c. 102. § 15; and the 3rd and 4th Victoria, c. 22. § 3.

The process mentioned in this and the ninth chapter is very like the modern method of making glass into cylinders and opening and flattening it out into sheets, which has been already briefly described in a note to the Introduction.

The only part of Theophilus' description which could not easily be reduced to practice, is that which relates to pinching

the lips of the cylinder together in the centre of the mouth, in order as it would appear to ensure a firmer adhesion of the cylinder to the blow-pipe, by bringing both its edges in contact with the hot glass at the end of the rod. If one could without doing violence to the words translate the following passages,—"*Conjunge oram ipsius, superiorem videlicet partem ad inferiorem, ita ut ex utraque parte conjunctionis foramen appareat*,"—and again, "*et complicans oram ejus in medio* ——" as if the lips of the cylinder were merely approximated, without being actually brought in contact with each other, the difficulty would be obviated;

CHAPTER VII.

OF YELLOW GLASS.

But if you see [the glass in] any pot change to a yellow colour, let it continue in fusion [sine illud coqui] until the third hour, and you will have a light yellow. Work off as much of this as you want, in the course above mentioned. If you like, let it continue in fusion [permitte coqui] till the sixth hour, and you will have a reddish yellow. Make also from this as much as you please.

CHAPTER VIII.

OF PURPLE GLASS [DE PURPUREO VITRO].

If indeed you observe that [the glass in] any pot happens to change to a tan colour [in fulvum colorem] which is like flesh, keep this glass for flesh colour; and taking as much of it as you want, fuse [coque] the residue for two hours, viz., from the first to the third hour, and you will have a light purple, [purpuream levem]. And again fuse it [coque] from the third to the sixth hour, and it will be a red and perfect purple [purpurea rufa et perfecta]^h.

but in the opinion of practical men it would be almost impossible to separate the edges of the glass, after they had once been allowed to adhere together, without serious injury to the sheet of glass.

The flat stone, "lapidem æqualem," mentioned by Theophilus upon which the lump of glass at the end of the blow-pipe was moulded to proper shape before it was blown, appears to have been superseded by a plate of iron, as early as the time of Eraclius. The name he gives it, "marmor ferri," clearly indicates the material originally used for the purpose, of which the modern word "marver" is evidently a corruption.

^h The following receipts for colouring glass are taken from the treatise of Eraclius before referred to.

If you wish that the glass may be red make it thus from ashes which have not been well roasted. Take filings of copper, burn them till they become powder, and throw them into the little pot (mortariolum), and there will be produced the red glass which we call galienum.

Green glass you will make thus. Put into the little pot as much of the same powder as you think fit, and stir it, and it will be green.

Yellow (croceum) glass is thus made. Take raw ashes (cinerem crudum) and fuse them, and throw in a little sand with

CHAPTER IX.

OF SPREADING OUT TABLES OF GLASS.

When you have worked off as much as you can of these colours, and the glass has been annealed in the furnace [in

them, and if I mistake not, a little powder of copper, and stir them together, and the yellow glass is produced which we call *cerasin*.

Purple and flesh colour (*membranaecum*) are made from the ashes of the beech tree, which are roasted as the white ashes, and thrown into the pot, and fused by boiling (*bulliendo*) till (the glass) is turned to a purple colour. When you see it turn to a purple colour take as much as you want, and make the work which you desire, till you see it turn to paleness. From this pale colour it turns to another, which is called *membrun*.

In this last receipt *Eraclius* agrees with *Theophilus* in representing the purple and flesh colours as being obtained without the addition of any colouring matter. For procuring red, green, and yellow, it will be observed that he directs the same colouring ingredient to be employed.

The analysis of some ancient Roman coloured glass, given in *Lardner's Cyclopædia*, shews that this is not so absurd as it may at first appear. The same ingredients (oxide of copper being one) were obtained from a piece of red and a piece of green glass.—“It is remarkable,” observes the author, “that the constituent ingredients of both these specimens should prove to be the same. The difference between them exists only in their

relative proportions; and the colours depend upon the different degrees of the oxidation of the copper. Suboxide of copper, that is, copper which has combined with only half the quantity of oxygen required for the production of the perfect oxide, produces a red enamel; while that which has received its full proportion of oxygen yields a green enamel colour.”—“*Treatise on Porcelain and Glass*,” p. 270.

According to the analyses which have been made of ancient coloured glass, the colouring material in red glass was copper, and more rarely iron¹; in blue, iron or cobalt; in yellow, charcoal; and in green, copper; though some have asserted that all the gradations of red, blue, and yellow, were obtained from iron². . . This assertion as far as middle age glass is concerned, is contradicted by the receipts just given. It seems that the analyses of ancient glass have not been made in sufficient number or very zealously, and this perhaps is the reason that no satisfactory result has been obtained. But even if an analysis should succeed in detecting the ingredients which have been employed, these are not of themselves sufficient to account for the colours of the glass. A great deal, especially in variations of tint, depends on the temperature at which fusion takes place, the length of time during which it is con-

¹ M. Bontemps, in the pamphlet to which I have before referred, “*Peinture sur Verre au xix siècle*,” p. 23, note, relates that during the French Revolution, when it was proposed to melt all the ruby glass in the churches, for the sake of obtaining the gold which it was supposed to contain; the chemist who was charged to ascertain by experiment the probable quantity of gold derivable from this source, on analysing some ruby glass, found that the principal colouring matter was composed only of a weak proportion of copper, and iron. Thus the intended destruction of the glass was arrested. This fact M. Bontemps gives on the authority of M. d'Arcet.

I should add that to M. Bontemps belongs the honour of having, in 1826, revived the ancient manufacture of ruby glass. He notices in the above-mentioned pamphlet, the streakiness of the colouring matter of the earlier kinds of ancient ruby; and ridicules *le Vieil's* notion that it was caused by applying the colour with a brush. M. Bontemps ascribes it to a defect in the manufacture, adding however, that it would be far more difficult to reproduce this streaky ruby, than to make ruby glass of an even tint.

² Gessert, “*Geschichte der Glasmalerei*,” p. 56. He adds that yellow had often been produced merely by stirring the melted glass continually with a wooden pole.

furno refrigeratum], set out your whole work, and light a large fire in the furnace in which it is to be spread out and flattened. When this is heated, take a hot iron, and having split [findens] one side of the glass [cylinder], lay it [the cylinder] on the hearth of the heated furnace, and when it begins to soften, take the iron tongs and a smooth piece of wood, and opening it in that part in which it is split, spread it out, and flatten it at pleasure with the tongs. When it is quite flat, take it out and so place it in the annealing furnace, which has been moderately heated, that the table [of glass] do not lie down, but may stand against the wall of the furnace. Place next to it another table flattened in the same manner, then a third, and so all the rest. When they are cold, use them in the composition of windows, dividing [findendo] them in pieces as you wish.

CHAPTER X.

HOW GLASS VESSELS ARE MADE.

When you are going to make glass vessels, make glass in the order above mentioned, and when you have blown it to the size

tinued, and the thickness and quality of the glass. From the receipts of Theophilus and Eraclius it is evident how much the old artists relied on the effects produced by the longer or shorter duration of the fusion. Not so much practical benefit therefore is to be expected from the employment of chemical science in the analysis of old glass, as from its application to the production of colours which may rival the old ones.

Modern blue glass is always coloured with oxide of cobalt.

The preparation of cobalt is conjectured by Beckman (*Hist. of Inventions*, vol. ii. p. 353.) to have been invented at the end of the fifteenth century, and its application to colouring glass to have taken place about 1540 or 1560, though he admits that the use of cobalt might have been known to the ancients, and the knowledge of it afterwards lost. The analysis of ancient glass mentioned by him produced iron. Dr. Gessert however mentions that ancient blue glass

from Thebes, from Pompeii, and the baths of Titus, has yielded ferrugineous (eissenschüssig) oxide of cobalt. This would be the same as zaffre, which is also termed impure oxide of cobalt, and contains both iron and arsenic, and is the cobalt of commerce.

The fine deep blue on the little porcelain figures found with Egyptian mummies appears from the application of various chemical tests to have been produced by oxide of cobalt (*Lardner's Treatise*, p. 8), and possibly the imitative glass gems, mentioned by Theophilus, chap. xii, were also coloured with cobalt. The strong colouring power of this material, one grain giving a full blue to 240 grains of glass³, may have caused its presence in the latter to escape detection by the ancient chemists. The word zaffre is perhaps merely a corruption of sapphire, and may have originated in the use to which the above-mentioned glass gems called sapphires were applied.

³ Aikin's *Dict. of Chemistry and Mineralogy*, Art. "Cobalt."

you wish, do not make a hole in the bottom as above directed, but separate it entire from the tube, with a stick dipped in water, and immediately, having heated the tube, make it adhere to the bottom. Raise the vessel, heat it in the flame, and with a round piece of wood enlarge the opening from which you have separated the tube. Form and widen its mouth at pleasure, and enlarge the bottom of the vessel round the tube, that it may be hollow at its lower extremity. If you wish to make handles to it, by which it may be suspended, take a thin iron, plunge it up to the end in a pot of glass, and when a little adheres to it, take it out, and put it on the vessel in whatever place you please, and when it adheres, heat it in order that it may stick firmly. Make thus as many handles as you please, holding the vessel in the meantime near the flame so that it may be hot, without however being melted. Take also a little glass from the furnace, so as that it may draw a thread after it, and laying it upon the vessel where you wish, wind it round it, [holding it] near the flame so that it may adhere. This done you will remove the tube according to custom and put the vessel into the annealing furnace. In this manner you can work off as much as you want.

CHAPTER XI.

OF BOTTLES WITH LONG NECKS.

If you wish to make bottles with long necks, thus do. When you have blown the hot glass in form of a large bladder, stop the hole of the tube with your thumb in order that the wind may not escape, swing the tube with the glass that is appended to it beyond your head, as if you intended to throw it, and the neck having being stretched out in length by this action, raise your hand high, and let the tube with the vessel hang downwards in order to straighten the neck. Then separate it with a wet stick, and put it into the annealing furnace.

CHAPTER XII.

OF THE DIFFERENT COLOURS OF GLASS.

There are found in the ancient buildings of the pagans, in mosaic work, different kinds of glass; viz., white, black, green, yellow, sapphire [saphireum], red, purple, and the glass is not transparent, but dense like marble. They are as it were small square stones, from which are made works inlaid (*electra*) in gold, silver, and copper; concerning which we shall speak sufficiently in their place. There are also found various little vessels of the same colours, which the French, who are very skilful in this manufacture, collect: they fuse the sapphire [saphireum] in their furnaces, adding to it a little [modicum] clear and white glass, and they make tables of sapphire, which are precious, and useful enough in windows, [*tabulas saphiri pretiosas ac satis utiles in fenestris*]. They make tables of purple and green in like manner¹.

CHAPTER XIII.

OF GLASS DRINKING BOWLS, WHICH THE GREEKS DECORATE WITH GOLD AND SILVER.

The Greeks indeed make of the same sapphire stones [*ex eisdem saphireis lapidibus*] precious bowls for drinking out of, decorating them with gold after this manner. They take gold leaf, of which we have spoken above^k, and form out of it figures

¹ The manufacture of these imitation glass gems is mentioned in the following passage in Pliny,—“*Fit et tincturæ genere obsidianum ad escaria vasa, et totum rubens vitrum, atque non translucens, hæmatinon appellatum. Fit et album, et murrhinum, aut hyacinthos, sapphirosque imitatum, et omnibus aliis coloribus.*” —*Lib. xxxvi. c. 67.* See further as to these colours, ante, note to chap. viii.

The signification of the word “elec-

trum” is adopted from the French translation. The word occurs in other parts of the treatise, and Theophilus appears to have used it to signify the stones, or enamels, which are found in the reliquaries, crosses, &c., of the middle ages. In one place he seems to mean amber. The French translator justifies his interpretation by a note, which is too long to insert here.

^k In the first book of the treatise.

of men or birds, beasts or leaves, and lay them with water on the cup in whatever place they please. This gold leaf ought to be rather thick. Then they take very clear glass like crystal, which they themselves make, and which melts as soon as it feels the heat of the fire. They pound it carefully with water on a porphyry stone, and lay it with a brush very thinly all over the gold leaf. When it is dry they put it into the furnace in which the painted glass for windows is burned,—of which we shall speak hereafter¹,—putting under it [supponentes] fire and logs of beech wood, thoroughly dried in smoke. When they perceive that the fire so far penetrates the bowl that it acquires a moderate degree of redness, they immediately take out the wood, and stop up the furnace till it cools of itself, and the gold will never separate.

CHAPTER XIV.

THE SAME BY ANOTHER METHOD.

They do it also in another way. Taking gold, ground in a mill, such as is used in books^m, they mix it with water,—they do the same with silver,—and make with it circles, and within these, figures, or beasts, or birds, in varied workmanship, coating them with the very transparent glass of which we have spoken above.

They then take white glass, and red, and green, which is used in inlaid works [electra], and pound each by itself on a porphyry stone carefully with water, and paint with it little flowers, and knots, and other minute objects as they please in varied workmanship between the circles and knots, and a border round the lip of the vessel. This painting is laid on of a moderate thickness, and is burnt in the furnace in the way above mentioned.

They make also bowls of purple, or light sapphire [levi sapphiro], and phials with moderately long necks, surrounding them with threads made of white glass, and giving them handles

¹ Post chapter xxiii.

^m Chapter xxxi. book 1, of the treatise.

of the same material. They vary also their different works with the same colours at pleasure.

CHAPTER XV.

OF GREEK GLASS, WHICH ORNAMENTS MOSAIC WORK.

They make also in the same manner as window glass, tables of clear white glass, a finger thick, and divide them with a hot iron into minute square morsels. They cover them on one side with gold leaf, and spread over it the very clear glass, pounded as above mentioned. They place the pieces of glass together on an iron plate,—of which we shall speak a little lower down^a—which is covered with lime or ashes, and burn them in the furnace for window glass as above mentioned. Mosaic work is very much embellished by the intermixture of glass of this kind.

CHAPTER XVI.

OF EARTHEN VESSELS PAINTED WITH DIFFERENTLY COLOURED GLASS.

They make also open dishes [scutellas], incense boxes [navicula], and other useful vessels of earthenware, which they paint in this manner. They take colours of every kind, and pound each separately with water, and with each colour they mix a fifth part of glass of the same colour, pounded by itself exceedingly fine with water. With this they paint circles, or arches, or squares, and within them beasts, or birds, or leaves, or any thing else they please. After these vessels have been thus painted, they put them into the furnace for window glass, applying below [adhibentes inferius] fire, and logs of dry beech wood, until the vessels being surrounded with flame acquire a white heat. Then taking out the wood, they close up the furnace as before mentioned. They can also, if they wish, decorate

^a Post chapter xxiii.

the same vessels in places with gold leaf, or with ground gold and silver, as above mentioned.

CHAPTER XVII.

OF THE MAKING OF WINDOWS.

When you desire to construct glass windows, first make yourself a smooth wooden board of such length and breadth that you can work on it two panels [*partes*] of each window°. Then take chalk, and scraping it with a knife over the whole table, sprinkle water thereon in every part, and rub the table entirely over with a cloth. When it is dry, take measure of the length and breadth of one panel [*unius partis*] of the window, describe it on the table by rule and compass, with lead, or tin. If you wish to have a border in it, draw it of such a breadth as pleases you, and with such workmanship as you wish. This done, draw as many figures as you like, first with lead, or tin, then in the same manner with a red, or black colour, making all the strokes carefully, because it will be necessary when you shall have painted the glass to join the shadows and lights [on the different pieces of glass] according to [the plan of] the board. Then arrange the various draperies, and mark down the colour of each in its place, and whatever else you wish to paint; mark the colour by a letter. After this take a small leaden vessel, and put in it chalk pounded with water; make yourself two or three hair pencils, viz., of the tail of a martin, or ermine, or squirrel, or cat, or of an ass's mane. Take a piece of glass of whatever kind you please, which must be every way larger than the place it is to occupy, and lay it flat on this place. When you have seen the strokes on the board through the glass, draw with chalk upon the glass the outer strokes only, and if the glass should be so dense that you cannot see the strokes on the board through it, take a piece of white glass and draw on that, and when it is dry lay the opaque glass upon the white, raise it against the light, and draw on it what you see through it. In the same

• Theophilus' reason for making the board twice the size of the picture is given subsequently in chap. xxvii.

manner you will mark all kinds of glass, whether for the face, or the drapery, hands, feet, or border, or wherever you wish to place colours.

CHAPTER XVIII.

OF DIVIDING GLASS.

Afterwards heat in the fire the dividing iron, which should be thin in every part, but thicker at the extremity. When it is red hot in the thicker part, apply it to the glass which you wish to divide, and soon the beginning of a crack will appear. If the glass should be hard, moisten it with saliva with your finger in the place where you had applied the iron. As soon as it is cracked, draw the iron in the direction in which you wish to divide the glass, and the crack will follow the iron. All the pieces having been thus divided, take the *grosing iron*^p [*grosarium ferrum*] which should be a palm long, and bent back at each end, with which you can smoothen and fit together [*conjunes*] all the pieces, each in its place. These things having been thus arranged, take the colour with which you are to paint the glass, which you are to compose in this manner.

CHAPTER XIX.

OF THE COLOUR WITH WHICH GLASS IS PAINTED.

Take copper, beaten small, and burn it in a small iron pipkin until it is entirely pulverized. Then take pieces of green glass [*viridis vitri*] and Greek sapphire [*saphiri Greci*], and pound them separately between two porphyry stones. Mix the three ingre-

^p In the before-mentioned account rolls given in Smith's Antiquities of Westminster, the tool used by the glaziers for breaking the glass and working it to shape is called "*croisour*," "*croysour*," or "*groysour*." The modern term is

"*grosing iron*." In French it is called "*gresoir*." A representation of one is given in *Le Vieil*, plate 7, fig. 3, and *grosing irons* are borne as a charge in the arms of the glaziers' company.

dients together in the proportion of one third powder, one third green glass, and one third sapphire. Pound them together on the same stone with wine or urine very carefully, put them into an iron, or leaden vessel, and paint the glass with the utmost care, according to the strokes which are upon the board. If you wish to make letters on the glass, you will cover those parts of the glass entirely with the same colour, and write the letters with the handle of the brush.

CHAPTER XX.

OF THE THREE COLOURS FOR THE LIGHTS IN GLASS [DE COLORIBUS TRIBUS AD LUMINA IN VITRO].

If you are diligent in this work, you can make the lights and shadows of the draperies in the same manner as in a coloured painting [*sicut in pictura colorum*]. When you have made the strokes in the drapery with the aforesaid colour, spread it with a brush in such a manner that the glass may be clear in that part in which you are accustomed to make a light in a picture, and let the same stroke be dark [*densus*] in one part, lighter in another, and again yet lighter, and distinguished with such care that it may appear as if three shades of colour had been applied [to the glass]⁹. This order you should observe, below the eyebrows, and round the eyes, and nostrils, and chin, and round the faces of young men, round the naked feet and hands, and other members of the naked body. And thus let the glass painting have the appearance of a painting composed of a variety of colours.

⁹ The process of smear shading is here very accurately described. I apprehend that Theophilus, in speaking of three gradations of tint in the shadow, only thereby means that the wash of colour should not be left of equal density throughout, but should be softened off towards the edges of the shadow with the brush. His directions in this respect, however, did not continue to be complied with, for nearly all the shadows that I

have examined in Early English glass paintings are of uniform depth in their whole extent. Experience probably shewed that the effect produced by a more finely finished shadow, was not commensurate with the labour of its execution. In *large* figures belonging to the Decorated, as well as the Early English style, shadows executed according to Theophilus' method, may occasionally be met with.

CHAPTER XXI.

OF THE ORNAMENTING OF A PICTURE IN GLASS.

Let there be also some ornament on the glass, viz., in the draperies, in the seats [sedibus], and in the grounds [in campis]; on the sapphire [saphiro], on the green and white, and the bright purple coloured glass. When you have made the first shadows in draperies of this kind, and they are dry, cover the rest of the glass with a light colour, which should not be so deep as the second tint of the shadow, nor so light as the third, but a medium between the two. This being dry, make with the handle of the brush near the shadows which you first made, fine strokes in every part, so as to leave between these strokes and the first shadows fine strokes of that light colour. On the remainder of the glass make circles and branches, and in these, flowers and leaves in the same manner in which they are made in illuminated letters [in litteris pictis]: but the grounds, which in the letters are filled with colours, you ought in glass to fill with the most delicate little branches. You can also in the circles sometimes insert small animals, and little birds and insects, and naked figures. In the same manner you can make grounds on the clearest white glass. You should clothe such figures as you place on this [white] ground with sapphire [saphiro], green, purple, and red; but on grounds of sapphire [saphiri] and green colour painted in the same manner [as before mentioned], and on red grounds not painted, make the draperies of clear white, than which kind of drapery none is more beautiful. In the borders, paint with the three before-mentioned colours, branches and leaves, flowers and knots, according to the process above described; and use the same colours in the faces of the figures, and in the hands and feet and naked limbs throughout, instead of that colour which in the preceding book is called *Posc.* You should not make much use of yellow glass in the draperies, except in

the crowns, and in those places where gold is to be placed in a picture^r.

These things having been all arranged and painted, the glass is to be burnt [coquendum], and the colour fixed [confirmandus] in a furnace, which you will thus construct.

CHAPTER XXII.

OF THE FURNACE IN WHICH GLASS IS BURNT.

Take flexible twigs, fix them in the earth, in a corner of the house, by each end, equally, in the form of arches; which arches ought to be a foot and a half high, and of like width, but a little more than two feet long. Then strongly knead clay with water and horse-dung, in the proportion of three parts of clay and one of dung. This mixture having been very well kneaded, mix with it dry hay. Make the composition into cylindrical lumps, and cover [with it] the arch of the twigs, both within and without, to the thickness of your fist; and in the middle of the top leave a round hole through which you can put your hand. Make yourself also three iron bars, a finger thick, and long enough to run across the width of the furnace. You can make three holes in each end of these bars, in order that you may, when you please, put them in and withdraw them [from the furnace]. Then put fire and logs of wood into the furnace until it is dried.

^r In the first part of this chapter the process of ornamenting glass with diaper patterns is described.

It is worthy of observation that the recommendation not to diaper red glass, which seems to be conveyed in the text, is to a certain extent in accordance with the practice of the medieval glass painters; red glass, especially when used in draperies, at no time being so commonly diapered as glass of other colours.

Some excellent hints relating to the arrangement and disposition of colours is also given above. One of the most valuable is that which regards the restricted employment of yellow glass, the lavish use of which is one of the vices of modern glass painting^d.

The following account of the colour called "Posch," is taken from the third chapter of the first book of Theophilus' treatise, entitled, "De Posch primo."

"When you have mixed flesh colour, and covered the faces and naked bodies with it, mix dark green and red,—which is obtained by burning ocre,—and a little cinnabar, and make 'posch,' with which you will mark the eyebrows and eyes, the nostrils and mouth, the chin, the little hollows about the nostrils and temples, the wrinkles on the forehead and neck, and the roundness of the face, the beards of young men, and the joints of the hands and feet, and all the limbs which are distinguished in a naked body."

CHAPTER XXIII.

HOW GLASS IS BURNT [COQUATUR].

In the mean time make yourself an iron plate [tabulam] less both in length and breadth by two fingers than the measure of the interior of the furnace. On this sift dry quick lime, or ashes, to the thickness of a straw, and press them down [compones] with a smooth piece of wood, that they may lie firmly. The plate should have an iron handle, by which it can be carried, and put in and drawn out [of the furnace]. Lay upon it the painted glass carefully, and together [conjunctum], so that the green and sapphire glass [saphirum] may be placed on the outer part [of the plate], near the handle; and on the inner part the white, yellow, and purple, which are harder and resist the fire [longer]. Then having inserted the bars, place the plate upon them. Then take logs of beech wood well dried in smoke, and light a moderate fire in the furnace, and afterwards increase it with the utmost caution until you see the flames ascend on every side between the plate and the furnace, and turn back, and cover the glass by passing over it, and as it were licking it, until it becomes a little white with heat. Then immediately take out the wood, stop the mouth of the furnace carefully, as well as the hole at top, by which the smoke used to escape, until it cools of itself. The lime and the ashes on the plate serve to preserve the glass from being broken to pieces on the bare iron by the heat. Having withdrawn the glass, try whether you can scrape off the colour with your nail, if you cannot, it is sufficient: but if you can, put the glass into the furnace again*. All the pieces of glass having been burned in this manner, replace them on the board each in its own place. Then cast rods of pure lead in this manner.

* I have never met with any ancient glass painting the enamel brown of which might not be scratched off in places, either with the point of a penknife, or the sharp angle of a broken piece of glass. But this softness of the enamel I am inclined to ascribe rather to the effect of

decomposition, than of insufficient burning. In some Early English glass paintings, the whole surface of the glass is so decomposed, that the enamel brown will readily chip off, along with portions of the glass, on being scratched with the finger nail.

CHAPTER XXIV.

OF THE IRON MOULDS.

Make yourself two irons two fingers broad, one finger thick, and an ell long. Join them at one extremity like a hinge, in order that they may keep together, being fastened by a nail, so as to be able to open and shut. At the other extremity make them a little broader and thinner, so that when they are shut together, there may be, as it were, the beginning of a hollow within. Let the outer sides be parallel, and you should so fit the irons to each other, with a plane and a file, that [when closed] no light shall appear between them. After this separate them from each other, and taking a rule, make in the middle of one of them two lines, and opposite, two lines in the middle of the other from top to bottom, of little width. Hollow these [lines] out with the tool used for hollowing candlesticks and other cast metal works, as deeply as you wish. In each iron scrape a little between the lines made with the ruler, in order that when you pour the lead into them, it may form only one piece. You must form the mouth into which you pour the lead in such a manner that one part of the iron may fit into the other, so that during the pouring it may not be unsteady.

CHAPTER XXV.

OF CASTING THE RODS [DE FUNDENDIS CALAMIS].

After this make yourself a hearth on which to cast lead, and in the hearths a pit, in which you can place a large earthenware pot, which you should line within and without with clay, kneaded with dung, in order that it may be stronger. Light a large fire upon it. When the pot is dry, put lead upon the fire in such wise within the pot that when it is melted it may run into the

pot. Then opening the iron mould [in which the rods are to be cast], place it on the coals, that it may become hot. You should have a piece of wood an ell long, which at one end where it will be held by the hand, should be round, but at the other flat, and four fingers broad. In this end there should be a hole cut across to the middle, according to the breadth of the iron; in which incision you will place the hot iron closed. You should hold the iron by the upper part, your hand being slightly bent, in such a manner that with its lower end it may rest on the ground. Having taken a small iron pipkin, heated, take up in it some of the melted lead, and pour it into the iron, and immediately replace the pipkin on the fire that it may continue hot. Throw the iron on the ground disengaged from the wood; open it with a knife, and having taken out the [lead] rod, shut the iron again, and replace it in the wood. If the lead will not flow to the bottom of the iron, pour it again into the iron, having previously heated the iron better. And thus continue to heat the iron until it will allow itself to be quite filled with lead: because if the iron is of an equal temperature you can cast with one heating more than forty rods^t.

CHAPTER XXVI.

OF WOODEN MOULDS [DE LIGNEO INFUSORIO].

But if you have no iron, take a piece of fir or other wood which can be evenly split, of the same length, breadth and thickness, as above [mentioned]. Having split it make it round on the outside; then make two small marks on the outside at each end of each face of the wood, according to the breadth you wish the rod to be in the middle. Take a line, [made of] a thin twisted thread, soak it in some red colour, and having separated the pieces of wood, apply the thread on

^t The process described in this and the preceding chapter is almost identical with the casting of the leaden rods at the present day, which are reduced to proper dimensions by being passed between two

rollers. Representations of the instruments used for these purposes are given in Le Vieil, plates 7, 8, and 9. See further remarks on the form and width of leads Introduction, p. 27. note (k).

the inside from the mark which you have cut in the upper part, down to the lower mark, so that it may be stretched tight. Then apply the other piece of wood, and press both strongly together, so that when they are separated, the colour may shew itself on both pieces [of the wood]. Take out the thread, and having again wetted it in the colour, fix it in the other mark, and again lay the other piece of wood on it, and press. When the colour appears on both sides, cut a hollow [calamum] with a knife, as wide and as deep as you wish, but so that the groove go not to the extremity of the wood, but only have an aperture at top, where you are to pour in [the lead]. Which having been done, join the pieces of wood together, binding them with a thong of leather from top to bottom. Hold them with another piece of wood, and pour the lead in, and having untied the thong take out the [leaden] rod. Bind it again and pour lead again into the wood, and this do until the charring extend to the end of the groove. So afterwards you may pour in [lead] lightly, as often and as much as you want. When you see that you have rods enough, cut a piece of wood, two fingers broad, and as thick as the rod is broad within : divide it in the midst, so that on one side it may be whole, and in the other there may be an incision in which a rod may be laid. Having placed the rod in the cleft, cut it on both sides with a knife, and plane and scrape it as you think fit.

CHAPTER XXVII.

OF PUTTING TOGETHER AND SOLDERING WINDOWS.

These things having been thus completed, take pure tin and mix with it a fifth part of lead, and cast in the above-mentioned iron or wood, as many rods of it as you want ; with which you will solder your work. You should have also forty nails, one finger long, which should be at one end slender and round, and at the other, square and perfectly curved, so that an opening

may appear in the middle^a. Then take the glass which has been painted and burnt, and place it according to its order, on the other part of the board on which there is no drawing. After this take the head of one figure, and surrounding it with lead, put it back carefully in its place, and fix round it three nails with a hammer adapted to this purpose. Join to it the breast, and arms, and the rest of the drapery; and whatever part you join, fix it on the outside with nails that it may not be moved from its place. You should then have a soldering iron, which ought to be long and thin, but at the end thick and round, and at the extreme end of the roundness, tapering and thin, filed smooth, and tiuned. Place this in the fire. In the mean while take the pewter rods which you have cast, cover them with wax on all sides, and scrape the surface of the lead in all those places which are to be soldered. Having taken the hot iron, apply the pewter to it wherever two pieces of lead come together: and rub with the iron until they adhere to each other. The figures having been fastened, arrange in like manner the grounds of whatever colour you wish, and thus piece by piece put the window together. The window having been completed and soldered on one side, turn it over on the other, and in the same manner by scraping and soldering, make it firm throughout^v.

^a These nails seem from the above description to have been formed like a common wire skewer. In the account roll, 25 Edward III. (see Smith's "Antiq. of Westminster," p. 197,) is a charge of 1s. 6d. for "200 of *cloryng* nails, bought to keep the glass together till it was joined." Nails are still used by glaziers for this purpose.

^v In Smith's "Antiquities of Westminster," Lond. 1807, p. 191, et seq. many entries are given from the account rolls, chiefly of the 25th Edward III., relating to the expenses incurred in glazing the windows of St. Stephen's chapel, Westminster. These entries, especially when read in connexion with Theophilus' treatise, throw so considerable light on the process of glass painting, and glazing in general, as practised in the reign of Edward III., that I have been induced to give here some extracts from them.

Amongst these entries occur the prices

paid for divers quantities "of white, red, blue, and azure coloured glass; for small bars called *sondlets* to hold the glass in the windows; for a long bar for a standard in a window; for a cord to draw up the panels of glass; for nails to fasten in the glass; for *cervis* [qu. *cerevisia*, ale, or wort] bought as well for the washing of the tables of glass, as for the cooling of the glass;" or, as it is elsewhere expressed, "for the washing of the tables for drawing on the glass; for *croysours*, bought to break and work the glass; for *cloryng* nails to keep the glass together till it was joined; for *suet* for the soldering of the glass windows; for *flings* to make solder; for tin for leading the glass; for wax for the glaziers; for silver *flings* for painting the glass for the windows of the chapel; for *arnement*, *rosyn*, and *geet*, for the painting of the glass."

It will be observed that "wax" and "tin" are mentioned by Theophilus, chapters xxvii. and xviii., as used in

CHAPTER XXVIII.

OF PLACING GEMS ON PAINTED GLASS.

In the figures of windows, if indeed you wish to make on the painted glass, in the crosses, in the books, or in the ornaments of the draperies, gems of another colour, without lead, viz., hyacinths [*iacinctos*], and emeralds, do thus. When you shall have

soldering the glass; and "nails" to hold it in its place till soldered: and a "grinding iron" to work the glass into shape.

Other entries relate to wages paid, "for grinding colours for the painting of the glass; for grinding geet, and arnement, for the painting of the glass; for new washing and whitening the glaziers' tables anew; for washing the tables for drawing on the glass; for drawing and painting on white tables, several drawings for the glass windows of the chapel; for working on the cutting and joining the glass for the windows; working on the glazing of the windows; joining and cooling the glass for the windows; breaking and joining the glass upon the painted tables; to two glaziers' boys, working with the glaziers on the breaking of the glass; to the glaziers joining and laying the glass for the window; laying glass for the quarrels¹ of the windows; laying glass on the tables and painting it."

To the smith, "for mending the crowsours for the glaziers;" to the "scaffold maker, making a scaffold for raising the glass of the panels of glass in the windows of the chapel;" to "a glazier going with the king's commission into Kent and Essex, to procure glaziers for the works of the chapel." To another man "for going on the business of procuring glass;" and to another, "for being employed on the providing of glass for the chapel."

It appears then, that as recommended by Theophilus, chap. xvii., the designs

for the glass were made on white tables, and that these designs were afterwards washed off the tables to make way for fresh designs. The practice of destroying old designs to make room for new ones, seems to have been followed by the masons also, see "*Archæological Journal*," No. 13, p. 14, which, as is there suggested, may account for the few original designs which have been preserved. Mr. Henry conjectures, see Henry's "*Hist. of England*," vol. x. p. 112, that the fifty-three delineations illustrating the history of the earl of Warwick, by John Rouse, who then resided at Warwick, contained in a MS. in the British Museum, (MSS. Cotton, Julius E. IV.,) which have been published by Mr. Strutt, are the very patterns which were delivered to John Prudd to be painted on the windows of the Beauchamp chapel, or that these delineations were copied from the windows after they were painted. I have had no opportunity of comparing these delineations with the remains of the glass in the chapel windows, but there is nothing in their design which would render them unfit subjects for a painted window.

The meaning of the phrase "breaking and joining the glass," cited above, may be gathered from chapter xviii. of Theophilus' treatise. And from the mention of "*cervis* to cool the glass," it seems that it was used to wet the glass, and make it crack, after it had been heated with the hot iron, called by Theophilus, the "dividing iron."

¹ Quarry, or quarrel, as applied to glass, signifies properly, a pane cut in the shape of, or placed as a lozenge. The word is most probably derived from the old French, *quarrel*, *quareau*, *quariau*, &c., [low Latin *quarellus*, *quadrellus*, from *quadrum*,] a word applied to several square or four sided objects, and having many of the significations of the modern French, *carreau*.

made in their places crosses in the glories, or on a book, or ornaments in the borders of draperies, which in a picture are made of gold or orpiment, let these in windows be made of clear yellow glass. When you have painted these in the way practised [*opere fabrili*], select the places in which you wish to put stones, and having taken pieces of clear sapphire, make of them hyacinths, according to the number of the places they are to occupy; and make of green glass, emeralds; and so arrange them that there may always be an emerald between two hyacinths. These being carefully brought together and fixed in their places, draw with a brush a thick colour round them, in such a manner that none shall flow between the two pieces of glass. Then burn them with the other pieces in the furnace, and they will adhere to each other so as never to fall off^v.

CHAPTER XXIX.

OF SIMPLE WINDOWS [*DE SIMPLICIBUS FENESTRIS*].

If indeed you wish to compose simple windows, first make on a wooden board the measure of the length and breadth. Then draw knots, or any thing else you please, and having determined the colours to be inserted, cut glass and fit it with the glosing iron [*grosa conjunge*], and having applied the nails, surround it with lead and solder it on both sides. Place around it pieces of wood strengthened with nails, and fix it where you wish^v.

CHAPTER XXX.

HOW A BROKEN GLASS VESSEL MAY BE MENDED.

If by chance a glass vessel of any kind fall, or is struck, so as to be broken, or cracked, let it be repaired as follows. Take ashes and sift them carefully, macerating them with water, and

^v See Introduction, p. 28, note (k).

^v It is clear that this chapter relates

to the formation of geometrical patterns of plain white and coloured glass.

fill therewith the broken vessel, and place it in the sun to dry. When the ashes are entirely dry, join the broken part of the vessel, taking care that no ashes or dirt remain in the joining. Take sapphire and green glass, which should be made to liquefy very slightly by the heat of the fire. Pound it carefully with water on a porphyry stone, and with a pencil draw a thin stroke of it over the fracture. Then place the vessel on the iron plate, raise a little that part of the vessel in which the fracture is, so that the flame may equally pass over it. Place it in the furnace for windows, putting under it logs of beech wood and fire, by degrees, until the vessel becomes hot, as well as the ashes in it: then immediately augment the fire that the flame may increase. When you perceive that it is almost red hot, take out the wood, and carefully stop up the mouth of the furnace, and the hole above, until it is cool within. Then withdraw the vessel, remove the ashes without [using] water, and then wash it and put it to such uses as you wish.

CHAPTER XXXI.

OF RINGS.

Rings are also made of glass, in this manner. Construct a small furnace in the way before described, then take ashes, salt, powder of copper, and lead. These things having been prepared, choose such colours of glass as you wish, and having placed underneath fire and wood, fuse them. In the meanwhile provide yourself a piece of wood a palm long, and a finger thick: on one third part of the wood place a wooden roller a palm long, in such a manner that you may be able to hold the other two parts of the wood in your hand. The roller also should remain above your head, firmly attached to the wood, and a third part of the wood should shew itself above the roller. The wood [of the roller] should be cut thin at the top, and so joined with a piece of iron as a spear is joined with its point. The iron should be a foot long, and the wood [of the roller]

should be so inserted in it, that at the juncture the iron should be equal [in size] to the wood, and from that place should be drawn out thinner even to the end, where it should be quite sharp. Near the window of the furnace, on the right,—that is, on your left,—let there stand a piece of wood of the thickness of a man's arm, stuck in the ground, and reaching as high as the top of the window: but on the left of the furnace,—that is, on your right,—near the same window, let there stand a little trough made in a piece of clay. Then the glass having been fused, take the wood with the roller and the iron, which is called a spit [*veru*], and plunge the end of the iron into a pot of glass; and drawing out [of the pot] the little glass that adheres to the iron, thrust the iron strongly into the wood [which is stuck into the ground], that the glass may be pierced through. Immediately heat the glass in the fire, and strike the iron against the wood twice, that the glass may be opened wide, and with quickness turn your hand with the iron that the ring may be enlarged into a round; and thus turning it, make the ring descend even to the roller, that it may become of equal shape. Immediately drop the ring into the little trough, and work off in the same manner as much as you want.

If you wish to vary the rings with other colours, when you have taken the glass and pierced it through with the thin iron, take from another pot, glass of another colour, surrounding the glass of the ring with it, as with a thread. Then having heated the ring in the flame as above [mentioned], complete it in the same manner. You can also place on the ring glass of another kind, as a gem, and heat it in the fire, so that it may adhere*.

* The instrument called *veru* above described, appears to have consisted of a short piece of wood with a handle at each end, and in the centre an upright shaft or roller of the same material, of the diameter of the intended ring, surmounted with a tapering iron head.

The lead seems to have been used in order to render the glass easier to work. It is mentioned as an ingredient of glass in the title of one of the lost chapters of Theophilus' treatise. The following receipt for making glass with lead is given in Eraclius.

"How glass is made from lead. Take

lead very good and clean, and put it in a new pot, and burn it on the fire till it becomes powder. Then take it from the fire that it may cool: afterwards take sand, and mix it with that powder, but so that there may be two parts of lead and the third of sand, and place it in an earthen vessel. Do as is before directed for making glass, and place the earthen vessel in the furnace, and continue stirring it, till glass is produced. But if you wish it to be green, take filings of copper (*aurichalcum*), and put as much as you think fit to the glass made from lead."

Theophilus does not describe the making of sheets of glass otherwise than in cylinders. The chapter however which appears to have treated of the manufacture of ruby glass is lost. That the art of flashing glass is of considerable antiquity appears from a piece of French ruby glass of the middle of the thirteenth century, in the possession of Mr. Ward the glass painter. This fragment is about five inches square, and it exhibits, what according to the opinion of a very competent judge,—Mr. James Green of the Whitefriars glass works,—is the mark of a punt, or a bull's eye. In Mr. Green's opinion this piece of glass was made by "flashing," and that in a very workmanlike manner. The colouring matter, as is often the case with glass of this date, constitutes about one-third of the entire thickness of the sheet; and when seen in section, exhibits the ruby collected into little laminæ precisely as in the specimens of the twelfth and thirteenth centuries referred to and represented ante p. 22, cut 1. The rough face of the bull's eye is on the white, or uncoloured side of the sheet. It is barely an inch in diameter; some of the white glass which covered the end of the punt still adheres to the sheet. The glass in, and immediately about the bull's eye, is a quarter of an inch thick: the rest of the sheet being, on an average, about half that thickness. It would appear from what has been stated, that in making this sheet of glass the workman collected on the blow-pipe the colouring matter first, and the white glass last.

APPENDIX (B).

THE rolls of account relating to the works carried on at Westminster in the reign of Edward III., contain a great deal of valuable and interesting information on the state of art, and on the prices of materials and the rates of wages at that time. Extracts from these rolls are printed in Smith's "Antiquities of Westminster," and in Britton's and Brayley's "History of the ancient Palace and late Houses of Parliament at Westminster." From these two works, but principally from the former, the following particulars have been selected, which may serve to throw some light on the state of glass painting in ancient times. The windows to which the accounts relate were those of St. Stephen's chapel, the late House of Commons.

It appears that there was expended on these windows between the 20th of June and the 28th of Nov., 1351, about £145; equal to about £1170 of the present day¹.

The workmen who are said to "work on the drawing of the images" and "draw and paint on white tables several drawings for the windows," that is to say, those who make the designs, are six in number. Master John de Chester, John Athelard, John Lincoln, Simon Lenne, John Lenton, and Hugh de Lichesfeld: of these John de Chester is paid sometimes seven shillings (equal to five guineas at present) per week, but in general he receives the same wages as the other five, who are styled *master glaziers*, namely, one shilling a day. When these men work on "the glazing of the windows," or "paint the glass," they receive the same wages. There is another set of workmen, fifteen in number, who are paid seven-pence a day: a third,

¹ According to the estimate of the value of money made by Mr. Hallam, "Middle Ages," vol. iii. p. 449, the proper multiples for converting into its modern equivalent, any sum mentioned in this note, the modern value of which is not given, would be, for sums previously to the reign of Henry VI., twenty; for sums during that reign, sixteen; and for the reign of Henry VIII., twelve; but in consequence of the changes which have taken place since that estimate was

made, lower multiples must be taken, and fifteen, twelve, and eight respectively will probably give a near approximation to the truth.

Many instances of the prices paid for works of art, and of wages and remunerations to servants and officers, will be found in Devon's "Issues of the Exchequer," but there is nothing in that book immediately relating to painted glass.

three and twenty in number, who are paid sixpence a day; and three, who receive only four-pence, or four-pence halfpenny a day: two of these last are termed "glaziers' boys," and they are generally specified as grinding colours. The second class, viz., those at seven-pence a day, are generally described as "drawing on the glass," or painting on the glass, while the third class, the men of sixpence a day, are almost always mentioned as "cutting and joining the glass, joining and cooling, joining and laying the glass, breaking and joining the glass on the painted tables." Frequently however no particular kind of work is specified. These wages seem much the same as those given to workmen in other branches of art: thus, in the instance of painters, Master Hugh de St. Albans, and John de Cotton, who were employed in painting the walls &c. of the chapel, receive "for working on the drawing of several images," and for "drawing images," as well as for the other occasions on which they are employed, one shilling a day. Two other painters receive the same. Of the rest, four are paid ten-pence, thirteen nine-pence, three eight-pence, three seven-pence, nine sixpence, and six five-pence and five-pence halfpenny a day: a colour grinder receives, as with the glass painters, four-pence halfpenny a day. One painter, John Barneby, is paid as high as two shillings a day. The particular nature of his work is not mentioned, he is merely said "to work on the chapel²." Edmund Canon, master stone-cutter, for working on the stalls is paid one shilling and six-pence a day for 364 days. The sculpture seems generally to have been done by task-work; this therefore is the only instance which we have in these accounts, to enable us to judge of the sculptor's wages. A master mason is paid one shilling, masons in general five-pence halfpenny a day. Carpenters are paid four-pence, five-pence, and sixpence a day; but one of them, William Hurle, a master carpenter, receives seven shillings a week "for working on the stalls."

On these wages it may be remarked that those of the inferior workmen seem higher than they would be at the present day, the lowest being equal to five shillings; while the master workmen on the other hand seem to be remunerated at a lower rate

² A case occurs in the year book 14 Henry VI., 19, b in which an artist is retained for a year for limning books at the rate of 10 marks a year.

than a leading artist of modern times would expect. But in making this comparison it is necessary to take into consideration the greater frugality and simplicity of living in ancient times; and on examination it would probably be found that the gains of the ancient artist bore at least as high a proportion to the incomes of the gentry, and to the salaries attached to offices of trust and dignity, as those of his modern successor. Thus in the reign of Edward the First, according to Mr. Hallam^a, "an income of £10 or £20 was reckoned a competent estate for a gentleman: at least the lord of a single manor would seldom have enjoyed more. A knight who possessed £150 per annum passed for extremely rich: yet this was not equal in command over commodities to £4000 at present." With regard to official salaries we find that William of Wykeham was appointed on the 30th of Oct., 1356, surveyor of the king's works at the castle, and in the park of Windsor, with a salary of one shilling a day when he staid at Windsor, and two shillings when he went elsewhere on his employment, and three and sixpence a week for his clerk. The following year he received an additional salary of one shilling a day^b. In 1389 Chaucer was appointed by Richard the Second clerk of the works at the palace of Westminster, the castle of Berkhamstead, and several other royal residences, with a salary of two shillings a day^c. The salaries of the judges in Edward the Third's time varied from 40 to 80 marks a year. The chief and puisne barons of the exchequer in the 36 Edward III. had £40: in 39 Edward III. the justices of the bench had £40 and the chief justice of the king's bench 100 marks^d. It seems unnecessary to seek for other instances of this kind. Enough has been stated to shew that the ancient workman was very liberally rewarded. From the

^a Hallam, "Middle Ages," vol. iii. p. 461, fourth edition.

^b Bishop Lowth's "Life of William of Wykeham," p. 20. He subsequently indeed received ecclesiastical preferments to a great amount. Dominus rex, it is said, multis bonis et pinguibus beneficiis ipsum Wilhelmum ditavit. The annual value of these fat benefices, amounted in the year 1366, before he was bishop of Winchester, to £873. 6s. 8d., about £13,000. But this is to be attributed to the high place he occupied in the coun-

cils and favour of the king. "There was at that time," says Froissart, "a priest in England of the name of William of Wykeham: this William was so high in the king's grace that nothing was done in any respect whatever without his advice."—Johnes' Froissart, vol. iii. p. 384, third edition.

^c Turner's "History of England," from Goodwin's life of Chaucer. The salary is from Britton and Brayley.

^d Reeve's "History of English Law," vol. iii. p. 154.

modes of thinking prevalent in the middle ages he, no doubt, held a less honourable place in society than the modern artist: yet there was ample inducement for men of genius to devote themselves to the cultivation of art, and, if we could free ourselves from the prejudice that attaches to names and terms, we might conclude, even without appealing to the testimony afforded by his productions, that the ancient *workman* was much more than a mere mechanic, and that in intelligence and education, according to the measure of his age, he was in no respect inferior to the modern *artist*.

Among the materials enumerated, in the before mentioned accounts, for the construction of the windows, are "small bars of iron called *sondlets*, to hold the glass in the windows," which cost two-pence a pound. "Two hundred of *cloryng nails* to hold the glass together till it was joined, one shilling and six-pence:" 160 pounds of tin for leading the glass, at three-pence a pound: six pounds and a half of wax, and three pounds of rosin for the masons and glaziers, each pound of wax costing seven-pence halfpenny, and each pound of rosin two-pence. *Croysors* or *Groisors* to break and work the glass, costing a penny farthing each. Cepo arietino (mutton suet), and filings to make solder for the glass windows: *servicia* (qu. *cervisia*, ale or wort*) for the washing of the tables for drawing the glass: *cervis*, as well for the washing of the tables as for the cooling of the glass: silver filings: *geet* (jet or black): *arnement* and rosin: all mentioned to be for the painting of the glass.

The greater part of the glass for the chapel is purchased between the 15th of August, 1351, and the 12th of December, 1352. White glass at the rate, some of sixpence, some of eight-pence, some of nine-pence per ponder, the ponder containing five pounds. The mean rate therefore at which the white glass is purchased is nearly seven-pence three farthings per ponder, or about one and eleven-pence of present money per pound.

The following curious entry occurs 13th Aug. 1352. "John Lightfoot for 300 leaves of silver for the painting of a certain window to counterfeit glass." This of course must have been a blank window.

* *Servicia*, ale or wort. This is the conjecture of both Smith and Britton. From some old receipts it would seem

that ale was a favourite ingredient. It is prescribed for making glue and varnish. See "*Reliquiæ Antiq.*," vol. i. p. 163.

Blue glass is purchased, some at the rate of one shilling, the rest, and by far the largest quantity, at the rate of three shillings and seven-pence farthing per ponder. Azure glass at three shillings, and red glass at two shillings and two-pence per ponder. Besides the glass just mentioned, "three *windows* of white glass, each containing seven feet," are purchased 13th Nov., 1331^f, at four-pence per foot. In 1357 one *window* of glass bought for the window over the chancel, forty feet, costs one shilling and two-pence a foot. In 1365, ninety-seven feet of white glass, wrought with flowers and bordered with the king's arms, cost one shilling and a penny per foot. And in the same year forty-two feet of white glass are purchased at the rate of one shilling per foot. No charges for wages or materials are found in the printed accounts corresponding with the dates of these four last purchases: from this circumstance, as well as from the terms in which the first three of them are described, it seems probable that the workmanship was included in the price.

The following instances of the price of glass, and of the expense of constructing painted windows, have been collected from various sources.

The cost of the glass of the north window in St. Anselm's chapel in Canterbury cathedral, constructed in 1336, including materials and workmanship, was £6. 13s. 4d., equal to about £90 present money^g. The presumption is that this was a *painted* window.

^f The pound at this time contained the same quantity of silver as in Edward the First's reign. Four-pence may therefore be taken as equal perhaps to six shillings.

^g The whole cost of this window is contained in Somner's "Antiq. of Canterbury Cathedral," 2nd ed. Lond. 1703. Appendix

to 2nd part, No. I. b. It is as follows:—

"De novâ fenestrâ in capellâ Apostolorum Petri et Pauli. Mem. quod ann. 1336 facta fuit una fenestra nova in eccl. Xpi Cant. viz. in Cap. S.S. Petri et Pauli Apost. pro quo expensâ, fuerunt ministratæ.

		lb.	s.	d.
Imp.	pro solo artificio seu labore cementariorum	xxi	xvii	ix
item	pro muri fractione ubi est fenestra - -	xvi		ix
item	pro sabulo et calce - - - -		xx	
item	pro MM ferri empti ad dictam fenestram		lxxxiv	
item	pro artificio fabrorum - - - -		lxv	iv
item	pro lapidibus Cani ¹ emptis ad eandem - -		c	
item	pro vitro et labore vitrarii - - - -	vi	xiii	iv
		xlili	xvii	ii

Summa viii^{lb} xliis ivd data fuit à tram, reliqua pecunia ministrata fuit à Priore."

¹ Caen stone.

By the contract entered into in 1338 for glazing the great west window of York cathedral, the glazier was to find the glass, and to be paid at the rate of sixpence, equal to about nine shillings, per foot for plain, and twice as much for coloured glass^h.

In 1405, John Thornton of Coventry contracted for the execution of the great east window of the same cathedral. It was to be finished in three years, and he was to receive four shillings a week, and one hundred shillings at the end of each year: and if he performed his work to the satisfaction of his employers he was to receive the further sum of ten pounds in silverⁱ. Including the ten pounds, the cost of this window would be equal to above nine hundred pounds of our money; at the present day such a window would probably cost not less than £2000. It is remarkable that the sum agreed to be paid to John Thornton, exclusive of the contingent ten pounds, is a trifle less than the wages paid to the master glaziers employed on St. Stephen's chapel for workmanship only.

In 1447 the windows of the Beauchamp chapel, at Warwick, were contracted for at the rate of two shillings, equal to £1. 4s. present money, per foot. They were to be glazed with "glass from beyond seas and with no English glass," according to patterns to be delivered and approved by the executors of the earl of Warwick, and afterwards to be newly traced and painted by another painter in rich colours at the cost of the contractor. Foreign glass was probably much used at about this time, for "painted glasses" occur among a number of articles, the importation of which was prohibited by an act passed in 1483 on the petition of the manufacturers of London and other towns^k.

^h Britton's "Hist. of York Cathedral." Appendix viii.

ⁱ Britton ubi supra.

^k Henry's "Hist. of Great Britain," vol. x. 251. [2 Rich. III. ch. 12.] The contract for the windows of the Beauchamp chapel entered into with the earl's executors, is given by Dugdale, as follows:—"John Prudde of Westminster glazier 23 Junii 25 Hen. 6. covenanteth &c. to glase all the windows in the new chappell in Warwick with glasse beyond the seas, and with no glasse of England; and that in the finest wise, with the best, cleanest,

and strongest glasse of beyond the seas that may be had in England, and of the finest colours; of blew, yellow, red, purple, sanguine, and violet, and of all other colours that shall be most necessary to make rich and embellish the matters, images, and stories, that shall be delivered and appoynted by the said executors by patterns in paper, afterwards to be newly traced and pictured by another painter in rich colour, at the charges of the said glazier. All which proportions the said John Prudde must make perfectly to fine, glase, eneylin it and finely

In 1526 the windows of King's college chapel, Cambridge, were contracted for, some at the rate of sixteen, some at that of eighteen-pence per foot for the glass, and two-pence per foot for the lead ¹.

and strongly set it in lead and solder it as well as any glasse is in England. Of white glasse, green glasse, black glasse, he shall use put in as little as shall be needful for the shewing and setting forth of the matters, images and storyes. And the said glasier shall take charge of the same glasse wrought and to be brought to Warwick and set it up there, in the windows of the said chapell: the executors paying to the said glasier for every foot of glasse ii shillings and so for the whole £xci. 1s. 10d."

"It appeareth," Dugdale continues, "that after these windows were so finished, the executors devised some alterations, as to the adde . . . for our Lady; and scripture of the marriage of the Earle, and procured the same to be set forth in glasse in most fine and curious colours; and for the same they payd the sum of xlii. vis. ivd. Also it appeareth, that they caused the windows in the vestry to be curiously glazed with glasse of iis. a foot, for which they payd 1s. The sum total for the glasse of the said Vestry and Chappell xviii. xviii. viid. which in all contain by measure: The east windows cxlix foot, 1 quarter and two inches. The south windows cccclx foot, xi inches.

The north windows cccv foot.

The totall decccx foot iii quarters of a foot and two inches."

Dugdale's "Antiquities of Warwickshire," 2nd edition, p. 446.

¹ The following is the contract referred to in the text:—

"Indenture made the laste day of the moneth of Aprelle in the yere of the reigne of Henry the 8th. by the grace of God, &c. the eightene, betwene the Right worshipfulle masters Robert Hacombelyn Doctor of Divinitie and Provost of the Kynges College in the universitie of Cambridge, master William Holgyllle clerke master of the Hospitalle of Saint John Baptiste called the Savoy besydes London, and master Thomas Larke clerke Archdeacon of Norwyche on that oon partie, and Galyon Hoone of the parysshe of Saint Mary Magdelen next Saint Mary Overey in Suthwerke in the countie of Surrey glasyer, Richard Bownde of the

parysshe of Saint Clement Danes without the barres of the newe Temple of London in the countie of Middlesex glasyer, Thomas Reve of the parysshe of Saint Sepulcre without Newgate of London glasyer, and James Nycholson of Saint Thomas Spytell or Hospitalle in Suthwerke in the countie of Surrey glasyer on that other partie witnesseth, that it is covenanted condescended and aggreed between the seid parties by this Indenture in manner and forme folowing, that is to wete, that the said Galyon Hoone, Richard Bownde, Thomas Reve and James Nicholson covenante graunte and them bynde by these presents that they shalle at their owne propre costes and charges well, suerly, clenely, workmanly, substantially, curiously and sufficiently glase and sette up, or cause to be glazed and set up eightene wyndowes of the upper story of the great churche within the Kynges college of Cambridge, whereof the wyndowe in the este ende of the seid churche to be oon, and the wyndowe in the weste ende of the same churche to be another; and so seryatly the resydue with good, clene, sure and perfyte glasse and oryent colors and imagery of the story of the olde lawe and of the newe lawe after the forme, maner, goodness, curyousytie, and clenelynes in every poynnt of the glasse wyndowes of the Kynges newe chapell at Westminster; and also accordyngly and after such maner as oon Barnard Fflower glasyer late deceased by Indenture stode bounde to doo, that is to sey, six of the seid wyndowes to be clearly sett up and fynyshed after the forme aforesaid within twelve moneths next ensuyng after the date of these presentes; and the twelve wyndowes residue to be clerly sett up and fully fynyshed within foure yeres next ensuyng after the date of these presentes; and that the seid Galyon, Richard, Thomas Reve and James Nycholson shalle suerly bynde all the seid wyndowes with double bands of leade for defence of great wyndes and outrageous wetheringes; Furdermore the seid Galyon, Richard, Thomas Reve and James Nycholson covenante and graunte by these presents that they shall well and sufficiently sett up at

It would appear from these instances, notwithstanding the high price of the Beauchamp windows, that the expense of con-

their own propre costes and charges all the glasse that now is there redy wrought for the seid wyndowes at suche tyme and when as the seid Galyon, Richard, Thomas Reve and John Nycholson shal be assigned and appoynted by the seid masters Robert Hacombelyn William Holgylle and Thomas Larke or by any of them; and well and sufficiently shal bynde all the same with double bandes of lede for defence of wyndes and wetheringes, as is aforeseid after the rate of two-pence every foote; and the seid masters Robert Hacombelyn William Holgylle and Thomas Larke covenante and graunte by these presentes, that the foreseid Galyon, Richard Bownde, Thomas Reve and James Nycholson shall have for the glasse workmanship and setting up *twenty* foot of the seid glasse by them to be provided, wrought, and sett up after the forme abovesaid eightene pence sterlinges; Also the seid Galyon Hoone, Richard Bownde, Thomas Reve and James Nycholson, covenante and graunte by these that they shalle delyver or cause to be delyvered to Ffraunces Wylliamson of the paryshe of Seint Olyff in Suthwerk in the countie of Surrey glasyer, and to Symond Symondes of the paryshe of Seint Margarete of Westmynster in the countie of Middlesex glasyer, or to either of them good and true patrons, otherwyse called a vidimus, for to fourme glasse and make by other four wyndowes of the seid churche, that is to sey, two on the oon syde and two on the other syde, whereunto the seid Ffraunces and Symond be bounde, the seid Ffraunces and Symond paying to the seid Galyon, Richard Bownde, Thomas Reve, and James Nycholson for the seid patrons otherwyse called a vidimus as moche redy money as shal be thought reasonable by the foreseid masters William Holgylle and Thomas Larke;"

A clause follows for making void a bond of 500 marks entered into by the contractors, on due performance of their covenant.

The next contract is dated the 3rd of May in the same year as the preceding; it is made between the same persons of the one part and Ffraunces Wylliamson and Symond Symonds above-mentioned of the other part, and witnesseth "that the seid Ffraunces Wylliamson and Symond Symondes covenante graunte

and them bynde by these presentes that they shalle at their owne propre costes and charges well, suerly, clenely, workmanly substanti ally curiously and sufficiently glase and sett up or cause to be glased and sett up foure wyndowes of the upper story of the great churche within the Kyng's college of Cambridge, that is to wete two wyndowes on the oon syde of the seid churche, and the other two wyndowes on the other syde of the seid churche with good clene perfyte glasse," &c. verbatim as in the preceding contract. "And also accordyngly to suche patrons otherwyse called vidimus, as by the seid Robert Hacombelyn, William Holgylle and Thomas Larke or by any of them to the seid Ffraunces Wylliamson and Symond Symonds or to either of them shal be delyvered, for to forme glasse and make by the foreseid four wyndowes of the seid churche; and the seid Fraunces Wylliamson and Symond Symonds covenante and graunte by these presentes that two of the seid wyndowes shall be clerely sett up and fully fynysht after the fourme abovesaid within two yeres next ensuyng after the date of these presentes, and that the two other wyndowes, residue of the seid foure wyndowes, shal be clerely sett up and fully fynysht within three yeres next ensuyng after that without any furder or longer delay; Furdermore the seid Fraunces Wylliamson and Symond Symonds covenante and graunte by these presentes that they shalle strongly and suerly bynde all the seid four wyndowes with double bands of leade for defence of great wyndes and other outrageous wethers; and the seid masters Robert Hacombelyn, William Holgylle and Thomas Larke covenante and graunte by these presentes that the seid Fraunces Wylliamson, and Symond Symonds shall have for the glasse workmanship and setting up of every foot of the seid glasse by them to be provided, wrought, and sett up after the forme abovesaid sixtene pence sterlinges:"

Proviso for making void a bond of £200.—Walpole's "Anecdotes of Painting in England," 2nd ed. vol. i. Appendix.

The east window of the chapel of Wadham college, was contracted for by Bernard Van Linge for £100 in 1621. Ingram's "Memorials of Oxford," vol. ii.

structing painted windows gradually diminished from the time of Edward III., a result which might be expected, as the improvements that in the course of time would be introduced into the manufacture, would naturally have the effect of rendering the articles cheaper.

APPENDIX (C).

As there has been frequent occasion, in the course of the preceding work, to speak of the nature of the subjects which are usually met with in painted windows, it has appeared convenient to bring together a few descriptions of some ancient ones, which are either still in existence, or of which accounts have come down to us. The first of the following descriptions is taken from Somner's "*Antiquities of Canterbury*," (2nd edition, by Nicholas Battely, M.A., London, 1703,) and contains an account of the subjects represented in the windows of the cathedral of that city. Portions of these windows still exist, though principally in a confused and fragmentary state, and they offer a very ancient specimen of painted glass in this country. The window described in Gostling's "*Walk round Canterbury*," as *the window next the organ loft*, is at present made up of portions of the second and third windows in Somner's description, two thirds belonging to the former and one third to the latter. The window next to this, is made up from the third, fourth, and sixth windows in Somner's description. As might be expected from the age in which they were executed, the subjects will be found to represent chiefly such occurrences in the Old and New Testament as bear, or were supposed to bear to each other the relation of type and antitype. They were evidently a good deal dilapidated even in Somner's time, and it is not always easy to discover, from his description, even as corrected by Battely, (who says he compared it with "a fair MS. roll in parchment,") in what order the medallions containing the subjects were arranged. They most probably were placed three in a row; this is the way in which those in the first of the existing windows above mentioned are arranged, and it is accordant with the arrangement which prevails in the "*Biblia*

Pauperum." There, as here, two types from the Old Testament are joined to each antitype, the former being placed on each side of the latter. The subjects of the "*Biblia Pauperum*" frequently bear a considerable resemblance to those enumerated by Somner^m. Thus the first woodcut contains, Eve and the serpent, the Annunciation, and Gideon and the fleece. Moses with God in the bush, is however associated with Christ lying in the manger. The verse relating to the flourishing of Aaron's (by Somner called Moses') rod is nearly the same as at Canterbury. *Hic contra morem produxit virgula florem.* David's escape from Saul is associated with the flight into Egypt: and the offering of Samuel with the presentation of Christ in the temple: but there is rarely an agreement between the "*Biblia Pauperum*" and the windows in *both* the types which are joined to an antitype. As Somner is not a book of very common occurrence, I have inserted the whole of his description. The subject of the painting is first briefly mentioned, and then the verses written in the medallion are given.

^m Lessing wrote an essay to shew that the woodcuts of the "*Biblia Pauperum*" were taken from painted windows. His principal endeavour is to prove that the forty prints, which form the most ancient series, were taken from the forty windows of the cloisters of the monastery of Horschau on the borders of the Black forest. The monastery was destroyed by the French in 1692, but a minute account of the windows, drawn up by Abbot Parsimonius, or Karg, in 1574, is still extant, with plans of their arrangement. Nothing according to Lessing can be more exact than the correspondence between the woodcuts of the "*Biblia Pauperum*," and these windows; and the two specimens which he gives from the description by Parsimonius, confirm his statements. There are the same subjects, the same arrangement, the same texts from Scripture, and the same verses, with only one very trifling variation. Unfortunately an investigation into the date of the windows shewed him that they were more recent than the woodcuts, as the cloisters or at least three sides of

them were built about 1491, and there are two editions of the "*Biblia Pauperum*," with a German text, bearing the respective dates 1470 and 1475, while the oldest with a Latin text is supposed to be still more ancient. Mr. Young Ottley thinks it not later than 1420. Lessing, however, will not entirely give up his opinion, but his attempts to get over the difficulty are very unsatisfactory. He relies much on the resemblance which the woodcuts bear to Gothic windows, but this resemblance will hardly strike others so forcibly as it did Lessing. On the whole it seems most probable, notwithstanding the reasons he urges to the contrary, that the window paintings were taken from the woodcuts. It is evident that one of the works must have been taken from the other, or both from a common source. Subjects from the "*Biblia Pauperum*" are of no unfrequent occurrence in glass paintings. Some of them for instance are found in one of the windows of Munich cathedral. Geisert, "*Geschichte der Glasmalerei*," p. 118.

FENESTRÆ IN SUPERIORI PARTE ECCLESIAE CHRISTI
CANT. INCIPIENTES A PARTE SEPTENTRIONALI.

FENESTRA PRIMA.

1. **Moses cum Rubo.** In Medio. Angelus cum Maria.
Rubus non consumitur, tua nec comburitur in carne virginitas.
2. **Gedeon cum vellere et conca.** Vellus cœlesti rore maduit, dum
puellæ venter intumuit.
3. **Misericordia et veritas.** In medio Maria et Elizabeth.
Plaude puer puero, virgo vetulæ, quia vero
Obviat hic pietas : veteri dat lex nova metas.
4. **Justitia et Pax.**
Applaudit Regi previsor gratia legi.
Oscula Justitiæ dat pax ; cognata Mariæ.
5. **Nabugodonosor et lapis cum statua.** Puer in præsepio.
Ut regi visus lapis est de monte recisus
Sic gravis absque viro virgo parit ordine miro.
6. **In medio Maria.**
7. **Moses cum virga.** In medio. Angelus et Pastores.
Ut contra morem dedit arida virgula florem
Sic virgo puerum, verso parit ordine rerum.
8. **David.** Gaudebunt campi et omnia quæ in eis sunt.
9. **Abacuc.** Operuit cœlos gloria ejus, &c.

FENESTRA SECUNDA.

1. In medio tres Reges equitantes. Balaam. Orietur stella ex Jacob,
et exurget homo de Israel. Isaia et Jeremia. Ambulabunt gentes
in lumine tuo, &c.
2. In medio. Herodes et Magi. Christus et Gentes.
Qui sequuntur me non ambulabunt in tenebris.
Stella Magos duxit, et eos ab Herode reduxit
Sic Sathanam gentes fugiunt, te Christe sequentes.

Z Z

3. Pharaoh et Moses, cum populo exiens ab Egipto.
Exit ab erumpna populus ducente columpna.
Stella Magos duxit. Lux Christus utrisque reluxit.
4. In medio. Maria cum puero. Magi et Pastores. Joseph et fratres
sui cum Egiptiis.
Ad te longinquos Joseph trahis atque propinquos.
Sic Deus in cunis Judæos gentibus unis.
5. Rex Solomon, et Regina Saba.
Hiis donis donat Regina domum Solomonis.
Sic Reges Domino dant munera tres, tria, trino.
6. Admoniti sunt Magi ne Herodem adeant: Propheta et Rex Jero-
boam immolans.
Ut via mutetur redeundo Propheta monetur
Sic tres egerunt qui Christo dona tulerunt.
7. Subversio Sodomæ et Loth fugiens.
Ut Loth salvetur ne respiciat prohibetur.
Sic vitant revehi per Herodis regna Sabei.
8. Oblatio pueri in templo, et Simeon. Melchisedech offerens panem
et vinum pro Abraham.
Sacrum quod cernis sacris fuit umbra modernis.
Umbra fugit. Quare? quia Christus sistitur aræ.
9. Oblatio Samuel.
Natura geminum triplex oblatio trinum
Significat Dominum Samuel puer, amphora vinum.
10. Fuga Domini in Egiptum. Fuga David et Doeck.
Hunc Saul infestat: Saul Herodis typus extat.
Iste typus Christi, cuius fuga consonat isti.
11. Elias Jesabel et Achab.
Ut trucis insidias Jesabel declinat Elias
Sic Deus Herodem, terrore remotus eodem.
12. Occisio Innocentum. Occisio sacerdotum Domini sub Saul.
Non cecidit David, pro quo Saul hos jugulavit
Sic non est cæsus cum cæsis transfuga Jesus.
13. Occisio Tribus Benjamin in Gabaon.
Ecce Rachel nati fratrum gladiis jugulati
His sunt signati pueri sub Herode necati.

FENESTRA TERTIA.

1. *Jesus sedet in medio Doctorum. Moses et Jethro cum populo.*
Sic Moses audit Jethro vir sanctus obaudit
Gentiles verbis humiles sunt forma superbis.
2. *Daniel in medio seniorum.*
Mirantur pueri seniores voce doceri
Sic responsa Dei sensum stupent Pharisei.
3. *Baptizatur Dominus. Noah in archa.*
Fluxu cuncta vago submergens prima vorago
Omnia purgavit: Baptisma significavit.
4. *Submersio Pharaonis et transitus populi.*
Unda maris rubri spatio divisa salubri
Quæ mentem mundam facit a vitio notat undam.
5. *Temptatio gulæ et vanæ gloriæ. Eva capiens fructum.*
Qui temptat Jesum movet Evam mortis ad esum
Eva gulæ cedit, sed non ita Jesus obedit.
6. *Eva comedit.*
Victor es hic Sathana: movet Evam gloria vana
Sed quo vicisti te vicit gratia Christi.
7. *Tentatio cupiditatis. Adam et Eva comedunt. David et Goliah.*
Quo Sathan hos subicit Sathanam sapientia vicit
Ut Goliath David, Sathanam Christus superavit.

FENESTRA QUARTA.

- | | | |
|---|---|---|
| 1. <i>Vocatio Nathanael</i>
<i>jacentis sub ficu.</i>
<i>Adam et Eva cum foliis.</i>
<i>Populus sub lege.</i> | } | <i>Vidit in hiis Christus sub ficu Nathanaelem.</i>
<i>Lex tegit hanc plebem, quasi ficus Nathanaelem.</i> |
| 2. <i>Christus mutavit aquam</i>
<i>in vinum. Sex hydræ.</i>
<i>Sex ætates mundi.</i>
<i>Sex ætates hominum.</i> | } | <i>Hydria metretas capiens est quælibet ætas,</i>
<i>Primum signorum Deus hic prodendo suorum</i>
<i>Lymphadat historiam, vinum notat allegoriam</i>
<i>In vinum morum convertit aquam vitiorum.</i> |

3. Piscatores Apostolorum. } Verbum reteratis Petri domus hæc pietatis
S. Petrus cum eccles. de } Pisces Judæi, qui rete ferant Pharisei
Jud. } Illa secunda ratis, domus hæc est plena
Paulus cum ecclesia de gen- } beatis
tibus. } Retia scismaticus, et qui vis scindit iniquus.
4. In medio Jesus legit in } Quod promulgavit Moses, legem reparavit
Synagoga. Esdras legit } Esdras amissam; Christus renovavit omissam.
legem populo. S^{us} Gre- } Quod Christus legit, quasi pro lectoribus egit.
gor. ordinans lectores. } Exemplo cujus sacer est gradus ordinis hujus.
5. Sermo Domini in } Hii montem scandunt Scripturæ dum sacra pandunt.
monte. Doctores } Christus sublimis docet hos sed vulgus in imis
Ecclesiæ. Moses } Ex hinc inde datur in monte quod inde notatur
suscepit legem. } Christum novisse debemus utramque dedisse.
6. Christus descendens de } Carne Deus tectus quasi vallis ad ima pro-
monte mundat leprosum. } vectus
Paulus baptizat popu- } Mundat leprosum genus humanum vitiosum :
lum. Heliseus. Naaman } Quem lavat ecce Deus quem mundat et hic
et Jordanis. } Heliseus
Est genus humanum Christi baptismate sanum.

FENESTRA QUINTA.

1. Jesus ejicit Demonium. } Imperat immundis Deus hic equis furibundis
Angelus ligavit Demo- } Hiis virtus Christi dominatur ut Angelus
nium. } isti.
2. Maria unxit pedes } Curam languenti, victum qui præbet egenti
Chr. Drusiana ves- } Seque reum plangit, Christi vestigia tangit.
tit et pascit ege- } Illa quod ungendo facit hæc sua distribuendo
nos. } Dum quod de pleno superest largitur egeno.
3. Marta et Maria cum Jesu. } Equoris unda ferit hunc; ille silentia
Petrus in navi. Johannes } querit;
legit. } Sic requies orat dum mundi cura laborat.
4. Leah et Rachel } Lyah gerit curam carnis; Rachelque figuram
cum Jacob. } Mentis, cura gravis est hæc, est altera suavis.

5. Jesus et Apostoli }
 colligunt spicas. Mo- } Quod terit alterna Mola lex vetus atque moderna
 la fumus et Apostoli } Passio, crux Christe tua sermo tuus iste.
 facientes panes. }
- Petrus et Paulus cum } Arguit iste reos, humiles alit hic Phariseos
 populis. } Sic apice tritæ panis sunt verbaque vitæ.
6. Jesus cum Samaritana } Potum quesisti fidei cum Christe sitisti
 Synagoga et Moses cum } Æqua viri cui sex Synogoga librique sui sex.
 quinque libris. Ecclesia } delicta notat hydria fonte relicta
 de gentibus ad Jesum. } Ad te de gente Deus Ecclesia veniente.
7. Samaritana adduxit } Fons servus minans pecus hydria virgo propinans
 populum ad Jesum. } Lex Christo gentes mulierque fide redolentes
 Rebecca dat potum }
 servo Abraham. Ja- } Jacob lassatus Rachel obvia grex adaquatus
 cob obviat Rachaeli. } Sunt Deus et turbæ mulier quas duxit ab urbe.

FENESTRA SEXTA.

1. Jesus loquens cum }
 Apostolis. Gentes } Sollicitæ gentes stant verba Dei sitientes
 audiunt. Pharisei } Hæc sunt verba Dei quæ contemnant Pharisei.
 contemnunt. }
2. Seminator et volu- } Semen rore carens expers rationis et arens
 cres. Pharisei rece- } Hii sunt qui credunt, temptantes sicque recedunt.
 dentes a Jesu. Phari- } Semen sermo Dei, via lex secus hanc Pharisei
 sei tentantes Jesum. } Et tu Christi sator, verbum Patris insidiator.
3. Semen cecidit inter } Isti spinosi locupletes delicioſi
 spinas. Divites hujus } Nil fructus referunt quoniam terrestria que-
 mundi cum pecunia. } runt.
4. Semen cecidit in terram } Verba Patris seruit Deus his fructus sibi
 bonam. Job. Daniel. } crevit
 Noah. } In tellure bona, triplex sua cuique corona.
5. Jesus et mulier commis- } Parte, Noë nati, mihi quisque sua dominati.
 cens sata tria. Tres filii Noë } Una fides natis ex his tribus est Deitatis.
 cum Ecclesia. Virgines } Personæ trinæ tria sunt sata mista farinæ
 Continentes Conjugati. } Fermentata sata tria tres fructus operata.

6. Piscatores. Hinc } Hii qui jactantur in levam qui reprobantur
Pisces boni, inde } Pars est a Domino maledicta cremanda camino
mali. Isti in vitam } Vase reservantur pisces quibus assimilantur
æternam. } Hii quos addixit vitæ Deus et benedixit.
7. Messores. Seges reponi- } Cum sudore sata messoris in horrea lata
tur in horreum. Zizania in } Sunt hic vexati sed Christo glorificati.
ignem. Justi in vitam æter- } Hic cremat ex messe quod inutile judicat esse
nam. Reprobi in ignem æter. } Sic pravos digne punit iudex Deus igne.
8. De quinque panibus et }
duob. piscibus satiavit } Hii panes legem, pisces dantem sacra Regem
multa millia hominum. } Signant quassatos a plebe nec adnihilatos.
D^{ns} Sacerdos. et Rex.
- Synagoga cum Mose et } Quæ populos saturant panes piscesque figu-
libris. Ecclesia cum } rant
Johanne. } Quod Testamenta duo nobis dant alimenta.
- Rex fecit nuptias filio } Rex Pater ad natum regem sponsæ sociatum :
et misit servos. } Præcipit alciri populum renuuntque venire.
- Excusant se qui- } Quos vexat cura caro. Quinque boum juga tuta,
dem per villam. } Nuncius excusans : hic ortans, ille recusans.
- Petrus docens sed se- } Sunt ascire volens Deus hunc, hic credere
quuntur Moyen et } nolens
Synagoram. } Petrus docens istumque studens Judæa fuisti.
- Johannes predicat } Vox invitantis causa tres dissimulantis.
intente audientibus. } Sponsam Sponsus amat : vox horum previa clamat.
- Ysaïas predicat audi- } Ecclesiam Christi junctam tibi prædicat iste
entibus tribus. } His invitata gens est ad edenda parata.
- Quidam sequuntur Re- } Hic Regis factum confirmat apostolus actum.
gem quidam fugiunt. } Credit et accedit, cito Gens Judæa recedit.
- Contemplatur Rex come- } Ad mensam tandem cito plebs sedet omnis
dentes. Resurgant mor- } eandem.
tui. } Sic omnis eadem vox hora cogit eadem.
- Dominus dicit electis } Rex plebem pavit spretis quos ante vocavit.
venite Benedicti. } Christus se dignos reficit, rejicitque malignos.
- Invenitur et ejicitur non } Dives et extrusus servus tenebrisque reclusus.
vestitus veste nuptiali. } Quem condemnavit rex ejecit cruciavit.
- Ananias et Saphiras moriuntur a Petro. Dominus ejecit vendentes
a templo.

FENESTRA SEPTIMA.

1. Curavit Jesus filiam viduæ. Ecclesia de gentibus cum Jesu. Petrus orat et animalia dimittuntur in linthea. } Natam cum curat matris prece; matre figurat Christo credentes primos, nataque sequentes.
Fide viventes signant animalia gentes;
Quos mundat sacri submersio trina lavacri.
2. Curavit Jesus hominem ad piscinam. Moses cum quinque libris. Baptizat Dominus. } Lex tibi piscina concordat sunt quia quina Ostia piscinæ, seu partes lex tibi quinæ.
Sanat ut ægrotum piscinæ motio lotum
Sic cruce signatos mundat baptismata renatos.
3. Transfiguratio Domini. Angeli vestiunt mortuos resurgentes. Angeli adducunt justos ad Deum. } Spes transformati capitis, spes vivificati
Claret in indutis membris a morte solutis.
Cum transformares te Christe, quid insinuares
Veste decorati declarant clarificati.
4. Petrus piscatur et invenit staterem. Dominus ascendit in Hierusalem crucifigitur. } Hunc ascendentem mox mortis adesse videntem
Tempora; te Christe piscis prænunciat iste.
Ludibrium turbæ Deus est ejectus ab urbe.
5. Statuit Jesus parvulum in medio Discipulorum. Monachi lavant pedes pauperum. Reges inclinantur doctrinæ Petri et Pauli. } Hoc informantur exemplo qui monachantur
Ne dedignentur peregrinis si famulentur.
Sic incurvati pueris sunt assimilati
Reges cum gente Paulo Petroque docente.
6. Pastor reportat ovem. Christus pendet in cruce. Christus spoliatur infernum. } sine versu.

FENESTRA OCTAVA.

1. Dominus remittit debita servo poscenti. } Ut prece submissa sunt huic commissæ remissa
Parcet poscenti seu parcit Deus egenti.

Petrus et Paulus absol- vunt pœnitentem, et Dominus sibi credentes. Servus percutit conser- vum. Paulus lapidatur. Stephanus lapidatur.	}	Cur plus ignoscit Dominus minus ille poposcit Conservum servus populus te Paule protervus Regi conservo repententi debita servo Assimulare Deus Martyr nequam Pharisæus.
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Tradidit eum tortoribus. Mittuntur impii in ig- nem. Judæi perimun- tur.	}	Cæditur affligens, captivatur crucifigens Hunc punit Dominus flagris, hos igne caminus.
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FENESTRA NONA.

Homo quidam descende- bat de Hier. in Jerico et incidit in latrones.	}	Perforat hasta latus, occidit ad mala natus.
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Creatur Adam. For- matur Eva, comedunt fructum, ejiciuntur de Paradiso.	}	Ex Adæ costa prodiit formata virago. Ex Christi latere processit sancta propago. Fructum decerpens mulier suadens mala serpens Immemor authoris vir perdit culmen honoris Virgultum, fructus, mulier, vir, vipera, luctus Plantatur, rapitur, dat, gustat, fallit, initur. Pœna reos tangit, vir sudat, fœmina plangit. Pectore portatur serpens, tellure cibatur.
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Sacerdos et Levita vident vulneratum et pertranseunt.	}	Vulneribus plenum neuter miseratus egenum.
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Moses et Aaron cum Pharaone. Scribitur tau. Educitur popu- lus. Adorat vitulum. Datur lex. Elevatur Serpens.	}	Pro populo Moyses coram Pharaone laborat : Exaugetque preces, signorum luce coronat. Qui color est rubeus siccum mare transit Hebræus Angelico ductu patet in medio via fluctu. In ligno serpens positum notat in cruce Christum Qui videt hunc vivit, vivet qui credit in istum. Cernens quod speciem Deitatis dum teret aurum Frangit scripta tenens Moyses in pulvere taurum.
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<p>Samaritanus ducit vul- neratum in stabulum cum jumento. Ancilla accusat Petrum. Do- minus crucifigitur. Sepelitur. Resurgit. Loquitur Angelus ad Marias.</p>	}	<p>Qui caput est nostrum capitur: qui regibus ostrum Prebet, nudatur: qui solvit vincla ligatur. In signo pendens. In ligno brachia tendens. In signo lignum superasti Christe malignum Christum lege rei, livor condemnat Hebræi Carne flagellatum, rapit, attrahit ante Pilatum Solem justitiæ tres, orto sole, Mariæ Quærun lugentes, ex ejus morte trementes.</p>
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FENESTRA DECIMA.

<p>Suscitat Jesus puellam in Domo. Abigael occurrit David et mu- tat propositum. Con- stantinus jacens et matres cum pueris.</p>	}	<p>Quæ jacet in cella surgens de morte puella Signat peccatum meditantis corde creatum Rex David arma gerit, dum Nabal perdere quærit Obviat Abigael mulier David, arma refrenat. Et nebulam vultus hilari sermone serenat. Rex soboles Helenæ, Romanæ rector habenæ Vult mundare cutem quærendo cruce salutem. Nec scelus exercet, flet, humet, dictata coerces.</p>
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<p>Dominus suscitatur pue- rum extra portam. Rex Solomon adoratur Idola et deflet pec- catum. Pœnitentia Theophili.</p>	}	<p>Qui jacet in morte puer extra limina portæ De foris abstractum peccati denotatur actum. Errat fœmineo Solomon deceptus amore: Errorum redimit mens sancto tacta dolore. Dum lacrimando gemit Theophilus acta redemit Invenies veniam dulcem rogando Mariam.</p>
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<p>Dominus suscitatur Laza- rum. Angelus alloqui- tur Jonam sub hedera ante Ninevem. Pœni- tentia Mariæ Egip- tiacæ.</p>	}	<p>Mens mala mors intus; malus actus mors foris: usus Tumba, puella, puer, Lazarus ista notant. Pingitur hic Nineve jam pene peracta perire Veste fidus Zosimas nudam tegit Mariam.</p>
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<p>Mittit Dominus duos Dis- cipul. propter asinam et Pullum. Sp. sanctus in specie columbæ inter Deum et hominum.</p>	}	<p>Imperat adduci pullum cum matre Magister Paruit huic operæ succinctus uterque minis- ter. Signaculus simplex quod sit dilectio duplex Ala Deum dextra fratrem docet ala sinistra.</p>
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Jesus stans inter Petrum } Genti quæ servit petris Petrum, petra mittit.
et Paulum. } Escas divinas Judeis Paule propinas.

Adducunt discipuli } Quæ duo solvuntur duo sunt animalia bruta
Asinum et Pullum. } Ducitur ad Christum pullus materque soluta.
Petrus adducit eccle- } De populo fusco Petri sermone corusco
siam de Judeis. Pau- } Extrahit ecclesiam veram reserando Sophiam
lus adducit ecclesiam } Sic radio fidei cæci radiantur Hebræi
de gentib. } Per Pauli verba fructum sterilis dedit herba
Dum plebs gentilis per eum fit mente fidelis
Gentilis populus venit ad Christum quasi pullus.

Occurrunt pueri Do- } Vestibus ornari patitur Salvator asellam
mino sedenti super } Qui super astra sedet, nec habet frenum neque
Asinam. } sellam.

Isaias dicit. Ecce Rex tuus } Qui sedet in cœlo ferri dignatur asello.
sedens super asinam. }

David ex ore infantum, &c. Sancti sanctorum laus ore sonat puerorum.

FENESTRA UNDECIMA.

In medio cœna Domini } Quid manibus David se gestans significavit
David gestans se in } Te manibus gestans das Christe tuis manifestans
manibus suis. Manna } Manna fuit saturans populum de plebe figurans
fuit populo de cœlo. } De mensa Jesu dare se cœnantibus esum.

Lavat Jesus pedes Apo- } Obsequio lavacri notat hospes in hospite sacri
stolorum. } Quos mundas sacro mundasti Christe lavacro.
Abraham Angelorum. } Cum Laban hos curat, typice te Christe figurat
Laban camelorum. } Cura camelorum mandatum Discipulorum.

Proditio Jesu. } Fraus Judæ Christum, fraus fratrum vendidit istum
Venditio Joseph. } Hii Judæ, Christi Joseph tu forma fuisti.
Joab osculatur. } Fœdera dum fingit Joab in funera stringit
Abner et occidit. } Ferrum, Judaicum præsignans fœdus iniquum.

Vapulatio Jesu. Job per- } Christi testatur plagas Job dum cruciatur
cussus ulcere. Heli- } Ut sum Judæ, jocus pueris Helisee.
zeus et pueri irriden- }
tes. }

FENESTRA DUODECIMA.

Christus portat crucem. } Ligna puer gestat, crucis typum manifestat.
 Isaac ligna. Mulier } Fert crucis in signum duplex muliercula lignum.
 colligit duo ligna.

Christus suspenditur } Mors est exanguis dum cernitur æreus anguis
 de ligno. Serpens } Sic Deus in ligno nos salvat ab hoste maligno
 æneus elevatur in co- } Ut Moyses jussit vitulam rufam rogos ussit
 lumna: Vacca rufa } Sic tua Christe caro crucis igne crematur amaro.
 comburitur.

Dominus deponitur de ligno. } Nos a morte Deus revocavit et hunc
 Abel occiditur. Heliseus ex- } Heliseus.
 pandit se super puerum. } Signa Abel Christi pia funera funere tristi.

Moses scribit Thau in fron- } Frontibus infixum Thau præcinuit cruci-
 tibus in porta de sanguine } fixum
 agni^a. Dominus in sepul- } Ut Samson typice causa dormivit amicæ.
 cro. Samson dormit cum } Ecclesiæ causa Christi caro marmore clausa.
 amica sua. Jonas in ventre } Dum jacet absorptus Jonas Sol triplicatortus
 ceti. } Sic Deus arctatur tumulto triduoque moratur.

Dominus ligans Diabolum. } Salvat ovem David; sic Christum significavit.
 Spoliavit infernum. David } Est Samson fortis qui rupit vincula mortis.
 eripuit Oves. et Samson } Instar Samsonis, frangit Deus ossa Leonis.
 tulit portas. } Dum Sathanam stravit, Chr^{tus} Regulum
 jugulavit.

Surgit Dominus de sepul- } Redditur ut salvus, quem ceti clausera talvus:
 cro. Jonas ejicitur de pisce. } Sic redit illesus, a mortis carcere Jesus.
 David emissus per fenes- } Hinc abit illesus David: sic invida Jesus
 tram. } Agmina conturbat, ut victa morte resurgat.

Angelus alloquitur Mariam } Ad vitam Christum Deus ut leo suscitât
 ad Sepulcrum. Joseph ex- } istum.
 trahitur e carcere. Et } Te signat Christe Joseph; te mors; locus
 Leo suscitât filium. } iste.

^a This subject, as well as that of the lion vivifying its cub, and the woman (of Zarephath) gathering two sticks, are explained in the "Monographie de la Ca-

thédrale de Bourges." See the review of this work in vol. i. of the "Archæological Journal," p. 169 et seq.

Sanctus Gregorius dat } Hospes abest: ubi sit stupet hic, cur, quove
 aquam manibus pau- } resistet.
 perum, et apparuit } Membra prius quasi me suscepisti sed heri
 ei Dominus. } me.

Gregorius dictat. Pe- } Pluris habes catum, quam Presul Pontificatum.
 trus scribit^o. Soli- } Quæ liber includit signata columba recludit.
 tarius cum cato P. }

Hostia mutatur in } Id panis velat, digiti quod forma revelat.
 formam digiti^o. } Velans forma redit, cum plebs abscondita credit.

Gregorius trahitur } Quem nomen, vultus, lux, vita, scientia, cultus
 et papa efficitur. } Approbat extractus latebris fit papa coactus.

The windows of King's college chapel, Cambridge, exhibit for the most part the same principle of parallelism as the Canterbury windows, but instead of two types, one only is joined to an antitype. As descriptions of these windows are very common, a few instances will here be sufficient. 1. Joseph cast into the pit: Christ laid in the tomb. 2. Joseph meeting his father and brethren in Egypt: Christ appearing to the eleven. 3. Elijah ascending to heaven: the ascension of Christ. 4. The delivery of the law to Moses: the descent of the Holy Ghost on the Apostles. 5. Jacob flying from the wrath of Esau: the flight into Egypt. 6. Esau tempted to sell his birthright: Christ tempted in the wilderness.

All these parallelisms occur in the "Biblia Pauperum;" they are examples (among many others) of how much the middle age artists confined themselves to a certain established set of subjects, a practice however which is not peculiar to them, but is observable in the works of the great masters. The types and antitypes represented in the Sistine chapel are described in

* Peter, a deacon, and disciple of St. Gregory, saw, as it is said, on one occasion when the saint was dictating to him, the Holy Spirit in the likeness of a dove seated on his head, and conveying words into his ears.

* This alludes to the following legend. A hermit who had no possessions except one cat,—*unam cattam quam blandiens erebro quasi cohabitricem in suis gremiis fovebat*,—having in thought compared his poverty with the riches of the saint, was admonished in a vision, and

instructed that the pope who gave away all his wealth to others was poorer than the hermit who retained to himself exclusive enjoyment of his cat.

* This was a miracle wrought by St. Gregory. A woman having, during the Holy Communion, smiled from incredulity on hearing the bread which she herself had made termed the body of our Lord, St. Gregory put aside the morsel he had offered her, and afterwards shewed it to her changed into part of a little finger covered with blood.

Kugler's "Handbook of Painting," vol. i. Many valuable and instructive remarks on the typical treatment of scriptural subjects by artists, will be found in the first book, and in the preface and notes of the English editor, see preface, p. 19, and notes, p. 14, 53, 127, 216.

In Bourges cathedral a window is sometimes occupied by the representation, in a series of medallions, of a single parable. In this way are represented the parables of the prodigal son and the good Samaritan. According to le Père Cahier the windows are symbolical expressions of the secret sense discoverable in the parables. The parables were very probably read in that age rather in a figurative than in a literal sense, but there seems to be no evidence that the windows were intended or understood to be any thing more than a representation of the incidents depicted in them^r.

^r The following notice of the painted glass formerly in the windows of the chapel of Lambeth Palace, is taken from "The History of the Troubles and Tryal of W. Laud, Abp. of Canterbury, by himself," London, 1695, p. 311. It should be stated that the chapel is lighted by triplets of lancets on each side, and by an east window consisting of five lancets.

"The windows contain the whole story from the Creation to the Day of Judgment: three lights in a window; the two side lights contain the types in the Old

Testament, and the middle light the anti-type, and Verity of Christ in the New."

In a subsequent page he says, "Abp. Morton did that work, as appears by his device in the windows," p. 317. Cardinal Morton, who held the see of Canterbury from 1487 to 1500, may however have only repaired the windows, as Laud himself did.

These painted windows were destroyed during the Rebellion. See *State Trials*, vol. i. p. 886, (note,) fol. *cd*.

APPENDIX (D).

IN this Appendix are inserted two extracts, one from what is commonly called the "Vision of Piers Plowman:" the other from "Piers Plowman's Creed," which may serve to illustrate the history of glass painting. The satirical picture they present furnishes an amusing specimen of the dexterity with which the ecclesiastics rendered the weaknesses of the faithful subservient to the decoration of their buildings, and shews that, notwithstanding the romantic view which is sometimes taken of the virtues of the middle ages, the *simple* piety of our ancestors was not unalloyed by vanity and ostentation, not to speak of grosser admixtures. The principal use of the extracts however, is to illustrate the practice of introducing armorial bearings, and to shew how generally the figures in ancient glass paintings may be looked upon as portraits. Portraits were certainly introduced at a very early period; there is one, for instance, of Suger in the glass at St. Denys, a representation of which is given in M. Lasteyrie's work. In monumental windows they were very common, and it is probably by means of such a portrait that the likeness of Littleton has been preserved*.

The censure of inscriptions recording the donor's name, which occurs in the first extract, may call to mind Pope's lines,

"Who builds a church to God, and not to Fame,
Will never mark the marble with his name,"

and shews the antiquity of the scruples which are entertained on this head, and which are noticed in a former part of this work.

* "It appears from county records that in the east window of the chancel in the chapel of St. Leonard at Frankley, there was a figure of a man in scarlet with a coif on his head, in the position of prayer, probably the original of the print prefixed to the old editions of Lord Coke's

commentaries. Cornelius Jansen painted from this likeness a full length picture of the judge (Littleton) which is now in the Inner Temple hall."—Phillimore's "Memoirs of Lord Lyttleton," vol. i. p. 4.

EXTRACT FROM "THE VISION AND THE CREED OF PIERS
PLOUGHMAN."

"Thanne cam ther a confessour,
Coped as a frere ; .
To Mede[†] the mayde
He meved^ⁱ thise wordes,
And seide ful softly,
In shrift as it were,
'Theigh lewed men and lered men
Hadde leyen by thee bothe
And Falsnesse hadde y-folwed thee
Alle thise fifty wynter,
I shal assoille thee myself
For a seem^² of whete,
And also be thi bedeman,
And bere well thi message
Amonges knyghtes and clerkes,
Conscience to torne^³.'

Thanne Mede for hire mysdedes
To that man kneled,
And shrof her of her sherewednesse
Shamlees I trowe ;
Told hym a tale
And took^⁴ him a noble
For to ben hire bedeman
And hire brocur als^⁵.

Thanne he assoiled hire soone,
And sithen he seide,
'We have a wyndow in werchyng

[†] Mede, Reward. Dr. Whittaker calls her Bribery, but Mr. Wright in his introduction to the edition from which the present extracts are taken, says, Mede "is the personification of that mistaken object at which so large a portion of mankind direct their aim—the origin of most of the corruption and evil deeds in this world; not the just remuneration of our actions which we look forward to in a future life, but the reward which is

sought by all those who set their hopes on the present."—"The Vision and the Creed of Piers Ploughman, with notes, and a Glossary, by Thomas Wright, M.A., F.S.A." &c. London, 1842.

^ⁱ moved.

^² seam, the measure so called.

^³ turn.

^⁴ gave.

^⁵ also.

Wole sitten us ful hye,
 Woldestow^b glaze that gable
 And grave therinne thy name
 Syker^c sholde thi soule be
 Hevene to have.'

'Wiste I that' quod that woman
 'I wolde noght spare
 For to be your frend, frere,
 And faile you nevere,
 While ye love lordes
 That lecherie haunten,
 And lakketh noght ladies
 That loven wel the same.
 It is freletee of flesshe,
 Ye finden it in bokes,
 And a cours of kynde^d
 Wherof we comen alle.
 Who may scape sclaudre,
 The scathe is soone amended ;
 It is synne of the sevene
 Sonnest releessed.'

'Have mercy' quod Mede
 'Of men that it haunteth,
 And I shal covre your kirke,
 Your cloistre do maken^e,
 Woves^f do whiten
 And wyndowes glazen,
 Do peynten and portraye
 And paie for the makynge,
 That every segge^g shal seye
 I am suster of youre house.'

Ac God to alle good folk
 Swich gravyng defendeth,
 To writen in wyndowes
 Of hir wel dedes,
 An aventure^h pride be peynted there,

^b wouldest thou.

^c certain.

^d nature.

^e do maken, do whiten, &c., cause to

be made, &c.

^f walls.

^g man.

^h by adventure, by chance.

And pomp of the world ;
 For Crist knoweth thi conscience,
 And thi kynde wille,
 And thi cost and thi coveteise
 And who the catel¹ oughte^k.
 For thi^l I lere^m you, lordes,
 Leveth swiche werkes ;
 To writen in wyndowes
 Of youre wel dedes,
 Or to gredenⁿ after Goddes men
 Whan ye dele doles,
 On aventure ye have youre hire here,
 And youre hevene also.
 Nesciat sinistra quod faciat dextra.
 Lat noght thi left half^o
 Late ne rathe^p
 Wite what thow werchest
 With thi right syde ;
 For thus by the gospel
 Goode men doon hir almesse."

In the "Creed," from which the next extracts are taken, "the author, in the character of a plain uninformed person, pretends to be ignorant of his creed; to be instructed in the articles of which, he applies by turns to the four orders of mendicant friars. This circumstance affords an obvious occasion of exposing in lively colours the tricks of those societies^q."

The first of the following passages contains part of the answer of the Minorite, or Franciscan friar.

"Certeyn, felawe' quath the frere
 'Withouten any fayle
 Of al men upon mold^r,
 We Minorites most sheweth

¹ goods, property.

^k owned.

^l therefore.

^m teach.

ⁿ cry out.

^o side.

^p late nor soon.

^q Warton's "Hist. of English Poetry,"

section ix. The Creed was written subsequently to the Vision, and by a different author. The Vision, Mr. Wright thinks, was written in the latter part of 1362. The Creed was written after the death of Wiclif, who died in 1384.

^r earth.

The pure aposteles liif,
 With penance on erthe,
 And suen him in sanctité,
 And sufferen wel harde.
 We haunten no tavernes,
 Ne hobelen abouten ;
 At marketes and miracles
 We medeleth us never ;
 We hondelen no moneye
 But monelich^a faren,
 And haven hunger at the mete,
 At ich a mel ones.
 We haven forsaken the world,
 And in wo libbeth,
 In penaunce and poverte,
 And prechethe the puple
 By ensample of our liif
 Soules to helpen ;
 And in poverte preien
 For al our parteneres,
 That gyveth us any good
 God to honouren,
 Other^t bel other book,
 Or bred to our food,
 Other catel, other cloth
 To coveren with our bones.
 For we buldeth a burwgh^u,
 A brod and a large,
 A chirch and a chapitle^x,
 With chaumbers alofte ;
 With wide wyndowes y-wrought,
 And walles wel heye,
 That mote ben portreid and paint,
 And pulched^y ful clene,
 With gay glitering glas
 Glowying as the sunne.

^a meanly.^t either.^u a castle, or large edifice.^x a chapter-house.^y polished.

And mightestou^a amenden us
 With moneye of thyn owen,
 Thou shouldest knely bifore Christ
 In compas of gold,
 In the wide window west-ward
 Wel neigh in the myddel
 And Saint Fraunceis himselfe
 Shal folden the in his cope,
 And present the to the Trinité
 And praye for thy symes.
 Thy name shal noblich ben wryten
 And wrought for the nones,
 And in remembraunce of the
 Y-rad there for evere.
 And, brother, be thou nought a-ferd ;
 Bythink in thyne herte,
 Though thou conne noughte thy crede,
 Care thou no more ;
 I shal asoilen the, Syr,
 And setten it on my soule ;
 And thou may maken this good
 Think thou non other.”

He afterwards goes on to make enquiry of the Dominicans,
 or Friars-preachers.

“Than thought I to frayne^a the first
 Of this foure ordres ;
 And presed to the Prechours
 To proven her wille.
 Ich highed to her house,
 To herken of more ;
 I gaped aboute,
 Swich a bild^b bold
 Y-buld upon erthe heighte
 Say I nought in certeyn
 Siththe a long tyme.
 I seemed^c opon that hous,

^a mightest thou.
^a inquire of.

^b building.
^c looked.

And yerne^d thereon loked,
 Whou the pileres were y-paint,
 And pulched ful clene
 And queyntly y-corven
 With curious knottes;
 With wyndowes wel-wrought
 Wyde up a-lofte,
 And thenne I entred in,
 And even forth wente;
 And al was walled that wone^e,
 Through it wiid were,
 With posternes in privité
 To pasen when hem liste;
 Orcheyardes and erberes^f
 Evesed^g wel clene,
 And a curious cros
 Craftly entayled,
 With tabernacles y-tight
 To loken^h al abouten,
 The pris of a plough-land
 Of penies so rounde
 To aparaile that pyler
 Were pure litel.
 Than I munte me forth
 The mynstre to knowen,
 And awaitedⁱ a woon^k
 Wonderly wel y-bild,
 With arches on everich half,
 And bellyche y-corven,
 With crochetes on corneres,
 With knottes of gold,
 Wyde wyndowes y-wrought,
 Y-wryten ful thikke,
 Shynen with shapen sheldes,
 To shewen aboute,

^d eagerly.^e dwelling.^f arbours.^g furnished with eaves.^h look.ⁱ saw—awayte, to see or discover by watching.^k a dwelling.

With merkes of merchauntes
Y-medeled betwene
Mo than twentie and two
Twyse ynoumbbred."

APPENDIX (E).

EXAMPLES OF MONUMENTAL INSCRIPTIONS ON PAINTED WINDOWS.

IN a window of St. Michael's Bashishaw, under the portraits of a man and his wife kneeling, (an engraving of them is given,) is the following inscription:—

Adrianus D'Ewes ex illustri familiâ des Ewes olim dynastarum ditionis de Kessel in Ducatu Gelriæ prognatus, intestinalium patriæ suæ discordiarum pertœsus in Angliam aliege-narum asylum sceptrum tenente rege Hen. VIII. recessit: foeminamque Anglicam nomine Aliciam ex perantiquâ Ravenscroftorum familiâ oriundam in uxorem duxit, et quatuor de eâ genuit filios Geerardt, Jacobum, Petrum et Andream. Obiit iste Adrianus de sudore Anglico mense Julii ann. 5 Edward VI. ann. dom. 1551, et infra limites sacratæ terræ hujus ecclesiæ inhumatur. Dicta autem Alicia maritum supervixit annis XXVIII. et ultimum naturæ debitum persolvit mense Julii ann. dom. CIODLXXIX. et tumulatur in hâc ecclesiâ non procul ab *istâ* fenestrâ, postquam viderat quatuor reges Angliæ viz., Hen. VII. Hen. VIII. Edw. VI. et Philippum, et ix. reginas regni ejusdem, viz., matrem vi. uxores et duas filias regis Hen. VIII.—Weever, p. 698.

KEDITON OR KEDINGTON (IN DIOCESE OF NORWICH).

IN the south window of this church is to be seen a Barnadiston, kneeling, in his compleat armor, his coat armor on his breast, and behind him his seven sons. In the next pane of the glass is Elizabeth the daughter of Newport, kneeling, with her coat armor likewise on her breast, and seven daughters behind her: and under it is thus written, now much defaced:—

Orate pro animabus Thomæ Barnadiston, militis, et Elizabethæ uxoris ejus, qui istam fenestram fieri fecerunt, anno domini MCCCC anima Deus amen.—Ibid., p. 471.

CHART MAGNA (DIOCESE OF CANTERBURY).

In the east window is thus to be read in glass,
*Memoriali reuerendi patris domini Jacobi Goldwell episcopi
 Norwicen.*

In the midst of the east window in the south chapel of this church, is the picture of the aforesaid Bishop Goldwell, kneeling, and in every quarry a golden well or fountain, (his rebus or name-device,) and cross the window inscribed,

. . . . Jacobo Goldwelle, episcopo Norwicien, qui opus fundavit ann. Christi MCCCCLXXVII.—*Ibid.*, p. 92.

WILLSBOROUGH.

In the east window of the south ile of this church you may find by an inscription that one Thomas Elys Esquire and Thomazin his wife were here buried.—*Ibid.*, p. 87.

TUNBRIDGE.

In the north window are depicted the portraitures of the Lord Hugh Stafford kneeling in his coat armor and his bow bearer Thomas Bradlaine by him, with this inscription,

*Orate pro animabus domini Hugonis Stafford et Thomæ
 Bradlaine arcuar.* *Ibid.*, p. 126.

THE PRIORY OF HOLYWELL.

In most of the glass windows these two verses following (not long since to be read) were curiously painted,

“Al the nunnes in Holywel,
 Pray for the soul of Sir Thomas Lovel.”

He died 25 May, ann. 1524.—*Ibid.*, p. 211.

GREAT THORNDON.

In the glass of the east window,

Tyrrell knyth and dame and for al the soules
 schuld be preyd for.—*Ibid.*, p. 410.

BARLEY.

Orate pro salubri statu¹ domini Willelmi Warham, legum doctoris, et Pauli London. canonici, magistri rotulorum, cancellarii regis, ac rectoris de Barley.

This Warham (remembered here in the glass window) was sometime archbishop of Canterbury.—Ibid., p. 314.

UFFORD.

Orate pro bono statu Christopheri Willoughby, armigeri, et Margerie uxoris ejus.

This is in a glass window of the church.—Ibid., p. 490.

The following extract is from Burton's "History of Leicestershire," 2nd edition, p. 279.

"In the east window of the chancel [of Wanlip church].

The portrait of a knight, armed, kneeling; on whose surcoat, Gules two bars gemels a bend argent: against whom is his lady in a kneeling posture, on whose under garment are the same arms, and under whom is written:—

Orate pro anima Thomæ Welsh Militis qui hoc templum fieri fecit MCCCCLXXXIII et pro anima Catharinæ uxoris ejus."

Other inscriptions are given in Somner's "Antiq. of Canterbury," pp. 328, 330, 333, 335, 336, and 337.

¹ There is reason for believing that in general, such an expression as *orate pro salubri statu*, or *pro bono statu*, indicated that the person mentioned was living at the time. Thus in the instance given in the text, it may be inferred from the absence of any allusion to the title, that the glass was executed before Warham became archbishop of Canterbury. So the inscription,—*orate pro bono statu religiosi viri Johannis, Epi. copi Wygorn*,—now lost, but preserved by Habringdon, shews that the work was done in the bishop's lifetime, for he was translated from Ely to Worcester in 1486.

The following inscription may also be cited in support of this opinion.

In St. Peter's church, Canterbury.

Orate pro bono statu Johannis Bigg armigeri, ac Aldermanni civitatis Cant. (et Constantiæ consortis suæ, qui me vitrari fecerunt. Anno Domini 1473, et specialiter pro bono statu Willelmi Bugg civitatis Cant. et Johanniæ consortis suæ, et pro animabus parentum ac benefactorum eorum qui hoc lumen Anno Dom. 1468.

Appendix to Somner's "Antiq. of Canterbury," p. 69. 2nd ed.

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ADDENDA AND CORRIGENDA.

P. 7, note (y), *dele* "in 1800."

p. 40, note (s), *add* "The examples forming a series extending over the whole of this period, and perhaps a short time immediately preceding it, and subsequent to it."

p. 44, line 16 from bottom, *add* "from the absence of colouring matter."

p. 48, last line, *for* "deified" *read* "divine."

p. 52, note (v), *add* "See also the aureoles or glories in plate 7; the coloured triangular ornaments in plate 1; and the Decorated flower in cut 15, post p. 89."

p. 54, line 17 from bottom, *for* "loricated" *read* "tegulated."

p. 56, line 2 from top, *add* "Clearstory windows are sometimes filled with plain glass cut to various geometrical patterns, and leaded together, the lead-work thus defining the pattern. The pattern is sometimes entirely formed of white glass, sometimes it is enriched by the insertion of a few small pieces of coloured glass."

p. 59, line 4 from top, *after* "or," *add* "as is often the case in French examples."

p. 63, note (g), *add* "A naturally-shaped leaf may occasionally be discovered in a late Early English glass painting, intermixed with the ordinary conventional Early English foliage, but it occurs so rarely that I have not referred to it in the text. A few such leaves may be observed in one of the five sisters at York, and in one or two of the windows of Canterbury cathedral."

p. 66, line 3 from bottom, *after* "style" *add* "except in clearstories."

p. 67, line 3 from top, *after* "picture" *add* "a panel containing a shield."

p. 82, line 3 from top, *for* "only" *read* "chiefly."

p. 91, line 12 from bottom, *add the following note.*

"The tracery lights of two windows in the north aisle of Ash church, near Wrotham, Kent, are filled with patterns composed of plain pieces of white and red glass. These patterns are coeval with the ornamented quarry patterns in the lower lights of the windows, and which are of the middle of the fourteenth century."

p. 96, line 14 from top, *add* "A desire to admit light into the choir may also have tended to the exclusion of coloured glass from the upper part of the east window of Gloucester cathedral: and this supposition is strengthened by the fact that the side windows of the clearstory of the choir, which are divided by a transom into two parts, never had more than their lower part filled with figures and canopies; the upper tier of lower lights, as well as all the tracery lights of each window, being filled with patterns, chiefly composed

of white glass, resembling the glass in the upper part of the east window, with which they range."

p. 111, line 3 from bottom, *for* "the whole Bible history," *read* "many of the occurrences recorded in the Bible."

p. 112, note, *add* "It appears that he was bound by his contract to perform the *painting* of the glass with his own hand."

p. 141, note (h), *add to the end of the last paragraph*, "Round glass was used in the windows of the monastery of Herschau in Germany. Tritheim, an historian of the monastery, says, under the year 1491, that Abbot Blasius 'Fenestras cum rotundia, id est *schyben*, et picturis ad tria latera ambitus monasterii fieri jussit; pro quibus plus quam trecentos auri florenos exposuit. In quarto vero latere picturas sine rotundis fecit duntaxat.'"

The above-cited passage shews that anciently *scheibe* when applied to glass denoted a *round* pane.

The idea of roundness forms part of the original signification of the word, and of most of its meanings, though in many, as in *fenterscheibe*, or *glas-scheibe*, it is lost. See *scheibe* in Adelung's 'Wörterbuch.'

That panes of glass in general should be designated by a word originally implying roundness, affords an inference, that in early German glazing, this form was universal, or nearly so. A contrary inference with regard to French glazing may be drawn from the word '*carreau*,' and perhaps with regard to English glazing, from the word '*quarry*.'

p. 147, line 15 from top, *add*

"The colouring of the picture is generally varied as much as possible by employing, whenever the same colour is repeated, glass of a different tint. This is particularly observable in the later Perpendicular glass paintings. In the windows of the north aisle of Cologne cathedral, which, as before mentioned, are of the early part of the sixteenth century; white glass of two different hues, the one yellow, the other blue, as well as various tints of ruby, blue, purple, green, lilac, and other colours, are employed in the same picture."

p. 207, line 7 from top, *for* "substitution" *read* "exclusion."

p. 214, line 10 from top, *for* "with the colouring and arrangement of the glass paintings of the latter half of the sixteenth century," *read* "with the arrangement of the glass paintings of the former half, and the colouring of those of the latter half of the sixteenth century."

p. 217, line 19 from bottom, *after* "is" *add* "often."

p. 232, note (c), *for* "Catholic" *read* "Christian."

p. 256, note, *add* "The general arrangement and design of the windows of the Maria Hilf church, are founded on an unexceptionable principle."

p. 294, note, *add* "Round glass, if employed in the windows of Palladian churches, would, owing to its superior delicacy, be found better to harmonize with the architecture than the square or rectangular panes of common glass now in use."

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